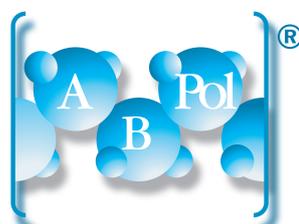


# 17º Congresso Brasileiro de Polímeros

29 de Outubro a 02 de Novembro de 2023

Joinville – SC

**PROGRAM  
BOOK**



Associação Brasileira de Polímeros

17<sup>th</sup> Brazilian Polymer Congress  
October 29 to November 2, 2023  
Joinville - SC

REALIZATION



# Summary

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## Summary table of activities

October 29th	
08:30 - 09:00	
09:00 - 09:30	
09:30 - 10:00	
10:00 - 10:30	
10:30 - 11:30	
11:30 - 12:00	
12:00 - 12:10	
12:10 - 13:00	
13:00 - 14:00	
14:00 - 15:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%; background-color: #336699; color: white; padding: 10px; text-align: center;">                     Entrega de Material Secretaria do Evento                 </div> <div style="width: 35%; background-color: #cccccc; padding: 10px; text-align: center;">                     Reunião INCT Polissacarídeos                 </div> </div>
15:00 - 15:10	
15:10 - 15:30	
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16:30 - 16:40	
16:40 - 17:00	
17:00 - 17:20	
17:20 - 18:10	
18:10 - 18:30	
18:30 - 19:00	
19:00 - 19:30	Sessão de Abertura, Posse dos novos membros do Conselho Diretor da ABPol e Apresentação Artística
19:30 - 20:30	
20:30 - 21:00	Coquetel de Abertura
21:00 - 22:00	

<b>October 30th</b>		
<b>08:30 - 09:00</b>	<b>Plenary Session 1</b>	
<b>09:00 - 09:30</b>		
<b>09:30 - 10:00</b>	<b>Coffee Break</b>	
<b>10:00 - 10:30</b>	<b>Oral Session 1</b>	<b>Technical Session 1</b>
<b>10:30 - 11:30</b>		
<b>11:30 - 12:00</b>		
<b>12:00 - 12:10</b>		
<b>12:10 - 13:00</b>	<b>Lunch</b>	
<b>13:00 - 14:00</b>		
<b>14:00 - 15:00</b>	<b>Plenary Session 2</b>	
<b>15:00 - 15:10</b>	<b>Coffee Break</b>	<b>Lançamento do livro "Reciclagem de Polímeros", que será no stand da ABPol</b>
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<b>15:30 - 16:20</b>	<b>Oral Session 2</b>	<b>Technical Session 2</b>
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<b>16:30 - 16:40</b>		
<b>16:40 - 17:00</b>		
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<b>17:20 - 18:10</b>	<b>Poster Session 1</b>	
<b>18:10 - 18:30</b>		
<b>18:30 - 19:00</b>		
<b>19:00 - 19:30</b>		
<b>19:30 - 20:30</b>	<b>Happy hour – Gutbrau</b>	
<b>20:30 - 21:00</b>		
<b>21:00 - 22:00</b>		

	<b>October 31st</b>	
<b>08:30 - 09:00</b>	<b>Plenary Session 3</b>	
<b>09:00 - 09:30</b>		
<b>09:30 - 10:00</b>	<b>Coffee Break</b>	
<b>10:00 - 10:30</b>	<b>Oral Session 3</b>	
<b>10:30 - 11:30</b>		
<b>11:30 - 12:00</b>		
<b>12:00 - 12:10</b>		
<b>12:10 - 13:00</b>	<b>Lunch</b>	
<b>13:00 - 14:00</b>		
<b>14:00 - 15:00</b>	<b>Workshop de Inovação e Empreendedorismo</b>	<b>Painel Circularidade</b>
<b>15:00 - 15:10</b>		
<b>15:10 - 15:30</b>		
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<b>16:30 - 16:40</b>	<b>Coffee Break</b>	
<b>16:40 - 17:00</b>		
<b>17:00 - 17:20</b>	<b>Workshop de Inovação e Empreendedorismo</b>	<b>Poster Session 2</b>
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<b>19:00 - 19:30</b>		
<b>19:30 - 20:30</b>		<b>Reunião Conselho Editorial Revista Polímeros</b>
<b>20:30 - 21:00</b>		
<b>21:00 - 22:00</b>	<b>WorkChopp</b>	
<b>22:00 - 23:00</b>		
<b>23:00</b>		

<b>November 1st</b>		
<b>08:30 - 09:00</b>	<b>Plenary Session 4</b>	
<b>09:00 - 09:30</b>		
<b>09:30 - 10:00</b>	<b>Coffee Break</b>	
<b>10:00 - 10:30</b>	<b>Oral Session 4</b>	<b>Technical Session 3</b>
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<b>11:30 - 12:00</b>		
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<b>12:10 - 13:00</b>		
<b>13:00 - 14:00</b>		
<b>14:00 - 15:00</b>	<b>Plenary Session 5</b>	
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<b>16:30 - 16:40</b>	<b>Coffee Break</b>	
<b>16:40 - 17:00</b>	<b>Poster Session 3</b>	
<b>17:00 - 17:20</b>		
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<b>18:30 - 19:00</b>		
<b>19:00 - 19:30</b>		
<b>19:30 - 20:30</b>	<b>Confraternização 17º CBPol</b>	
<b>20:30 - 21:00</b>		
<b>21:00 - 22:00</b>		
<b>22:00 - 23:00</b>		
<b>23:00</b>		

<b>November 2nd</b>	
<b>08:30 - 09:00</b>	
<b>09:00 - 09:30</b>	<b>Plenary Session 6</b>
<b>09:30 - 10:00</b>	
<b>10:00 - 10:30</b>	<b>Coffee Break</b>
<b>10:30 - 11:30</b>	<b>Oral Session 6</b>
<b>11:30 - 12:00</b>	<b>Premiação melhor trabalhos (Pôster) de iniciação científica, mestrado e doutorado</b>
<b>12:00 - 12:10</b>	<b>Assembleia Geral com diplomação da nova Diretoria da ABPol - Encerramento</b>
<b>12:10 - 13:00</b>	

## Plenaries

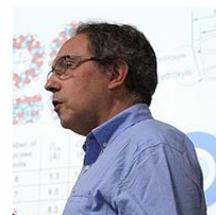
**PL1** – 30/10

08:30 - 09:30

**Speaker: Artur J. M. Valente**

*Department of Chemistry University of Coimbra (Portugal)*

**Title: Gels for environmental remediation: from aerogels to nanosponges**



**PL2** – 30/10

14:00 - 15:00

**Speaker: Luiz Henrique Capparelli Mattoso**

*Embrapa Instrumentação, Nacional Laboratory of Nanotechnology Applied to Agribusiness (Brazil)*

**Title: Polymers and agriculture: present and promising technological future**



**PL3** – 31/10

08:30 - 09:30

**Speaker: Linda J. Broadbelt**

*Department of Chemical and Biological Engineering - Northwestern University (USA)*

**Title: Developing strategies for polymer redesign and recycling using reaction pathway analysis**



**PL4** – 01/11

08:30 - 09:30

**Speaker: Fabiana Quiroga Garbin**

*Circular Economy Director in South America - BRASKEM (Brazil)*

**Title: Braskem's innovation journey to implement the Circular Economy**



**PL5** – 01/11

14:00 - 15:00

**Speaker: Ricardo Vinicius Bof de Oliveira**

*Co-founder/ Chairman / CTO 2D Materials Pte Ltd. Singapura (Singapore)*

**Title: Two decades of Polymer nanocomposites research: from academia to industry**



**PL6** – 02/11

09:00 - 10:00

**Speaker: Sandro Campos Amico**

*Department of Materials Engineering, Federal University of Rio Grande do Sul (Brazil)*

**Title: Natural Fiber and Hybrid Composites: Science and Technology**



## ORAL PRESENTATIONS

### MONDAY, OCTOBER 30

#### SESSION SO1 (10:00 - 12:10) - - Krona

10:30 **SO1.04.2**

##### **THERMAL, MECHANICAL, RHEOLOGICAL, AND MORPHOLOGICAL CHARACTERIZATION OF THE EXTRUDED PLA/PE-G-MA/CNC SYSTEM WITH AND WITHOUT CONTROLLED ELONGATIONAL FLOW DEVICE.**

Bruno Alexandro Bewzenko Cordova<sup>1</sup>, Milena Macedo Nogueira<sup>1</sup>, Eduarda Kowalsky<sup>1</sup>, Fábio Nunes Caixeta<sup>2</sup>, Benjamim de Melo Carvalho<sup>1</sup>; <sup>1</sup>*Universidade Estadual de Ponta Grossa*, <sup>2</sup>*Universidade de São Paulo*

10:50 **SO1.04.3**

##### **EFFECT OF NATURAL-BASED PLASTICIZERS ON PROPERTIES OF POLYHYDROXYBUTYRATE FILMS**

Pedro Cortez Rosendo<sup>1</sup>, Armando Soares de Jesus<sup>1</sup>, Irina Marinho Factori<sup>2</sup>, Neuma Pereira<sup>3</sup>, Gustavo Spina<sup>3</sup>, Anderson Maia<sup>3</sup>, Rondes Ferreira da Silva Torin<sup>1,3</sup>; <sup>1</sup>*Faculdade de Tecnologia de Mauá*, <sup>2</sup>*Instituto Senai de Inovação em Materiais Avançados e Nanotecnologia*, <sup>3</sup>*Instituto SENAI de Inovação em Materiais Avançados e Nanocompósitos*

11:30 **SO1.04.5**

##### **MODIFICATION AND CHARACTERIZATION OF LUFFA CYLINDRICA FIBERS WITH ZINC NANOFERRITE**

Eduardo Gavazzoni<sup>1</sup>, Paulo Rodrigo Stival Bittencourt<sup>1</sup>, Juliana Regina Kloss<sup>1</sup>, Fernando Gomes de Souza Junior<sup>2</sup>; <sup>1</sup>*Universidade Tecnológica Federal do Paraná*, <sup>2</sup>*Universidade Federal do Rio de Janeiro*

11:50 **SO1.04.6**

##### **IMPACT EVALUATION OF GLASS FIBER / POLYESTER WATERPROOF COMPOSITE SUBJECTED TO TEMPERATURA AND ACID ENVIRONMENT**

Bruno Caravelas Gary<sup>1</sup>, Gerson Marinucci<sup>1</sup>, Leonardo Gondim de Andrade e Silva<sup>2</sup>; <sup>1</sup>*Instituti de Pesquisas Energeticas e Nucleares*, <sup>2</sup>*Instituto de Pesquisas Energéticas e Nucleares*

#### SESSION SO1 (10:00 - 12:10) - - Instron Brasil

10:30 **SO1.01.2**

##### **DEVELOPMENT OF A NOVEL BIOREFINERY PROCESS FOR PRODUCING PHOSPHYLATED-LIGNIN FROM COCONUT WASTES**

Lucas Sousa Nascimento<sup>1</sup>, Rogério José Melo Nascimento<sup>2</sup>, Allan Karlos Alves da Mata<sup>1</sup>, Vinícius Taveira Andrade Felipe<sup>1</sup>, Rayanne Ferreira Araújo<sup>1</sup>, Luiz Carlos Alves Bezerra<sup>1</sup>, Jessica Silva de Almeida<sup>2</sup>, Adriano Lincoln Albuquerque Mattos<sup>3</sup>, Daniel Esdras Andrade Uchoa<sup>2</sup>, Leice Milla Ribeiro de Novais<sup>4</sup>, Caroline Doca<sup>4</sup>, Francisco de Assis Avelino de Figueredo Sobrinho<sup>1</sup>; <sup>1</sup>*Instituto Federal de Educação, Ciência e Tecnologia do Ceará*, <sup>2</sup>*Universidade Federal do Ceará*, <sup>3</sup>*Empresa Brasileira de Pesquisa Agropecuária*, <sup>4</sup>*Universidade Federal do Paraná*

10:50 **SO1.01.3**

##### **CELLULOSE ALKYLATION IN THE DMSO/DBU/CO<sub>2</sub> SOLVENT SYSTEM**

Matheus Fernandes Flores<sup>1</sup>, Antonio Aprigio da Silva Curvelo<sup>1</sup>; <sup>1</sup>*Universidade de São Paulo*

11:10 **SO1.01.4****INCORPORATION OF RENEWABLE CARBONS VIA FORMAMIDE REACTIVITY FOR NOVEL BIOBASED POLYMERS**

Bianca Campanile Rocha<sup>1</sup>, Isabela Autran Dourado<sup>1</sup>, Noemi Satie Pompeu Kimura<sup>1</sup>, Priscila Holanda Cordeiro<sup>1</sup>, Luiz Henrique Catalani<sup>1</sup>, Leandro Helgueira Andrade<sup>1</sup>; <sup>1</sup>*Universidade de São Paulo*

11:30 **SO1.01.5****SYNTHESIS OF POLY(BUTYLENE SUCCINATE)-CO- GLUTAMIC ACID MICROPARTICLES VIA SUSPENSION AND MINIEMULSION POLYMERIZATION**

Luciana da Silva Dutra<sup>1</sup>, Jéssica Bentes Alves<sup>1</sup>, Martina Costa Cerqueira Pinto<sup>1</sup>, Milena Ferreira<sup>1</sup>, Marcio Nele<sup>1</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio de Janeiro*

11:50 **SO1.01.6****ON THE CURING AND DEGRADATION OF BISPHENOL A DIGLYCIDYL ETHER AND EPOXIDIZED SOYBEAN OIL COMPOUNDS CURED WITH ITACONIC AND SUCCINIC ACIDS**

José Vinícius M. Barreto<sup>1</sup>, Ananda Albuquerque<sup>2</sup>, Nichollas Guimarães Jaques<sup>2</sup>, Matheus Ferreira<sup>2</sup>, Renate Wellen<sup>1</sup>; <sup>1</sup>*Universidade Federal da Paraíba*, <sup>2</sup>*Universidade Federal de Campina Grande*

**SESSION SO1 (10:00 - 12:10) - - dpUNION Instrumentação Analítica**10:50 **SO1.08.3****SYNTHESIS, CHARACTERIZATION AND ANTIMICROBIAL PROPERTIES OF CHITOSAN-SILVER NANOPARTICLES FOR COATING MEDICAL DEVICES**

Marcos Antonio Polinarski<sup>1</sup>; <sup>1</sup>*Universidade Federal do Paraná*

11:30 **SO1.08.5****COMPOSITE MEMBRANES OF POLY (GLYCEROL SEBACATE) WITH CALCIUM PHOSPHATES FOR BONE TISSUE REGENERATION**

João de Freitas Gomes Neto<sup>1</sup>, Carla dos Santos Riccardi<sup>1</sup>; <sup>1</sup>*Universidade Estadual Paulista*

11:50 **SO1.08.6****ALGINATE/HYDROXYAPATITE FILMS WITH ANTIMICROBIAL PROPERTY AS A WOUND DRESSING**

Marcela Piassi Bernardo<sup>1</sup>, Daniel Pasquini<sup>1</sup>, Luiz Henrique Capparelli Mattoso<sup>2</sup>; <sup>1</sup>*Universidade Federal de Uberlândia*, <sup>2</sup>*Empresa Brasileira de Pesquisa Agropecuária*

**SESSION SO1 (10:00 - 12:10) - - CREA**10:30 **SO1.07.2****RECYCLING OF FACE SHIELD HEADBANDS BASED ON PP/SGF COMPOSITE: INFLUENCE OF REPROCESSING CYCLES ON RHEOLOGICAL AND MECHANICAL BEHAVIOR**

Cindy Miyuki Kawaushi<sup>1</sup>, Jaqueline Venancio de Oliveira Silva<sup>1</sup>, João Otavio Gomes de Oliveira Prado<sup>1</sup>, Murilo Monteiro Balarini<sup>1</sup>, Vinicius Pereira da Silva<sup>1</sup>, Fernando Passareli<sup>1</sup>, Lourival Varanda<sup>1</sup>, Osvaldo Francisco de Souza Jr<sup>1</sup>, Osvaldo Correa<sup>1</sup>, Juliano Marini<sup>1</sup>; <sup>1</sup>*Univerdade Federal de São Carlos*

10:50 **SO1.07.3**

**CHEMICAL RECYCLING OF POLY(3-HYDROXYBUTYRATE-CO-3-HYDROXYVALERATE) (PHBV) SOLUTION BLOW SPUN FIBERS THROUGH HYDROLYSIS**

Lucas Gomes Rabello<sup>1</sup>, Roberto Carlos da Conceição Ribeiro<sup>2</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>, Rossana Mara da Silva Moreira Thiré<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio de Janeiro*, <sup>2</sup>*Centro de Tecnologia Mineral*

11:10 **SO1.07.4**

**GLYCOLYSIS OF PET BY MICROWAVE-ASSISTED HYDROTHERMAL METHOD USING A CLOSED SYSTEM**

Ananda Ramires das Neves Stigger<sup>1</sup>, Tiago Vidatetti<sup>1</sup>, Wesley Formentin Monteiro<sup>1</sup>, Mario Lucio Moreira<sup>2</sup>, Rosane Ligabue<sup>1</sup>; <sup>1</sup>*Pontifícia Universidade Católica do Rio Grande do Sul*, <sup>2</sup>*Universidade Federal de Pelotas*

11:30 **SO1.07.5**

**COMPARISON OF MANUAL PROCESSES WITH NEW TECHNOLOGIES FOR SEPARATING AND REUSING PLASTICS FROM MUNICIPAL SOLID WASTE**

Manoel Lisboa da Silva Neto<sup>1</sup>, Suely Gama<sup>2</sup>, Fabio Esper<sup>1</sup>, Hélio Wiebeck<sup>3</sup>; <sup>1</sup>*DEPARTAMENTO de ENG. METALÚRGICA e de MATERIAIS da ESCOLA POLITÉCNICA da USP*, <sup>2</sup>*Centro Universitário das Faculdades Metropolitanas Unidas*, <sup>3</sup>*ESCOLA POLITÉCNICA da USP*

**SESSION SO1 (10:00 - 12:10) - - TA Instruments**

10:30 **SO1.03.2**

**DEVELOPMENT OF ACTIVE STARCH BIOFILMS REINFORCED WITH NANOSILICA FOR FOOD PACKAGING**

Rosa Maria Vercelino Alves<sup>1</sup>, Maria Augusta Correa Martins<sup>2</sup>; <sup>1</sup>*Instituto de Tecnologia de Alimentos*, <sup>2</sup>*Faculdade de Engenharia Química da Unicamp*

11:30 **SO1.03.5**

**USE OF LIPASES IN THE (BIO)MODIFICATION OF POLYESTER FOR THE INCORPORATION OF CHITOSAN NANOPARTICLES**

Wendhy Carolina Vicente<sup>1</sup>, Patrícia Bulegon Brondani<sup>1</sup>, Larissa Nardini Carli<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina*

11:50 **SO1.03.6**

**PRODUCTION OF ACID HETEROGENEOUS CATALYST BASED ON GRAPHITE-CELLULOSE NANOFIBERS AEROGEL COMPOSITES**

Érica Rost<sup>1</sup>, Gabriela Ciribelli Santos Pompêu<sup>1</sup>, Daniel Pasquini<sup>1</sup>; <sup>1</sup>*Universidade Federal de Uberlândia*

**SESSION SO1 (10:00 - 12:10) - - margarida**

10:30 **SO1.06.2**

**NATURAL RUBBER NANOCOMPOSITES FOR SENSING APPLICATIONS**

Rafael Barbosa<sup>1</sup>, Roger Gonçalves<sup>2</sup>, Guilherme Eduardo de Oliveira Blanco<sup>3</sup>, Matheus C. Saccardo<sup>2</sup>, Kaique Afonso Tozzi<sup>4</sup>, Ariel Zuquello<sup>5</sup>, Carlos Henrique Scuracchio<sup>2</sup>; <sup>1</sup>*Universidade Federal de São Carlos*, <sup>2</sup>*Univerdade Federal de São Carlos*, <sup>3</sup>*Universidade Federal de São Carlo - Campus São Carlos*, <sup>4</sup>*Grenoble Institute of Technology Institut polytechnique de Grenoble*, <sup>5</sup>*Universidade Comunitária da Região de Chapecó*

10:50 **SO1.06.3****PAYNE EFFECT IN NR COMPOUNDS WITH SUSTAINABLE FILLERS USING DYNAMIC MECHANICAL CHARACTERIZATION**Abel Cardoso Gonzaga Neto<sup>1</sup>, Sandra Regina Scagliusi<sup>1</sup>, Hélio Wiebeck<sup>1</sup>, Ticiane Sanches Valera<sup>1</sup>, Patricia Calvão<sup>1</sup>; <sup>1</sup>DEPARTAMENTO de ENG. METALÚRGICA e de MATERIAIS da ESCOLA POLITÉCNICA da USP11:10 **SO1.06.4****STUDY OF THE DEGRADATION BY HYDROLYSIS OF POLYMERS USED AS DAMPING PARTS**Cátia Dulcinéia Francisco Klein<sup>1</sup>; <sup>1</sup>Universidade Feevale11:30 **SO1.06.5****EVALUATION OF THERMOMECHANICAL AND WEAR PROPERTIES OF RUBBER PADS USED IN HEAVY MILITAR VEHICLES**Moisés Xavier Guimarães Valentim<sup>1</sup>, William Lemos Bevilaqua<sup>1</sup>, Inácio da Fontoura Limberger<sup>1</sup>, Clarissa Piccinin Frizzo<sup>1</sup>, Vânia Denise Schwade<sup>1</sup>, Natália de Freitas Daudt<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Maria11:50 **SO1.06.6****EFFECT OF THE USE OF RICE HUSK ASH (RHA) AS A NON-CONVENTIONAL FILLER IN NITRILE RUBBER (NBR) COMPOSITIONS**Thiago Castro Lopes<sup>1</sup>, Leila Yuan Visconte<sup>1</sup>, Ana Lúcia Nazareth da Silva<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro**SESSION SO2 (15:30 - 17:20) - - Instron Brasil**16:00 **SO2.05.2****THE USE OF NATURAL CLAY AS A FILLER IN POLYPROPYLENE COMPOSITES FOR 3D PRINTING PURPOSES**Douglas Alexandre Simon<sup>1</sup>, Marcelo Strassburger<sup>1</sup>, Aline Zanchet<sup>2</sup>, Eveline Bischoff<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul, <sup>2</sup>Universidade de Caxias do Sul16:20 **SO2.05.3****STUDY OF 3D PRINTED BILAYERD PLA HONEYCOMB COMPONENTS FOR MICROWAVE ABSORBING APPLICATIONS**Débora Pereira Schmitz<sup>1</sup>, Leonardo Santana<sup>2</sup>, Guilherme Mariz de Oliveira Barra<sup>2</sup>, Bluma Guenther Soares<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Universidade Federal de Santa Catarina17:00 **SO2.05.5****EXPLORING MECHANICAL PROPERTIES OF 3D PRINTING FILAMENTS : A COMPREHENSIVE STUDY OF BRAZILIAN MARKET PRODUCTS**Rodrigo Denizarte de Oliveira Polkowski<sup>1</sup>, Leonardo Cardoso de Freitas<sup>1</sup>, Katielly Vianna Polkowski<sup>1</sup>, Marina Reis de Andrade<sup>1</sup>; <sup>1</sup>TRL9 LAB**SESSION SO2 (15:30 - 17:20) - - margarida**16:00 **SO2.02.2****ASSESSMENT OF THE RELAXATION TIME OF POLYSTYRENE UNDER CONTROLLED SHEAR FLOW BY RHEO-OPTICAL TECHNIQUES**Felipe Oliveira Campos Bernardo<sup>1</sup>, Sebastião Vicente Canevarolo Jr.<sup>1</sup>; <sup>1</sup>Univerdade Federal de São Carlos

16:20 **SO2.02.3**

**CROSSLINKED PVA NANOFIBERS WITH ANTIMICROBIAL ACTION**

Gabriel Nardi Fraga<sup>1</sup>, Douglas Cardoso Dragunski<sup>2</sup>; <sup>1</sup>*Universidade Estadual de Maringá*, <sup>2</sup>*Universidade Estadual do Oeste do Paraná*

16:40 **SO2.02.4**

**HIGH STRAIN RATE COMPRESSIVE BEHAVIOR OF BALLISTIC POLYCARBONATE: EXPERIMENTAL AND NUMERICAL MODELLING**

Rafael Rodrigues Dias<sup>1</sup>, Iaci Miranda Pereira<sup>1</sup>; <sup>1</sup>*Centro Tecnológico do Exército*

17:00 **SO2.02.5**

**EVALUATION OF THE DEGRADATION OF OXO-BIODEGRADABLE PP BY THE ACTION OF NATURAL WEATHERING**

João Augusto Osório Brandão<sup>1</sup>, Francisco Gehlen<sup>1</sup>, Edson Luiz Francisquetti<sup>2</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*, <sup>2</sup>*Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul*

**SESSION SO2 (15:30 - 17:20) - - Krona**

16:00 **SO2.04.2**

**TRANSMITTANCE AND THERMAL STABILITY OF REGENERATED CELLULOSE FILMS WITH SILVER NANOPARTICLES AND PLASTICIZERS**

Lays Furtado de Medeiros Souza Kataoka<sup>1</sup>, Maria del Pilar Hidalgo Falla<sup>1</sup>, Sandra Maria da Luz<sup>1</sup>; <sup>1</sup>*Universidade de Brasília*

16:20 **SO2.04.3**

**STRUCTURAL PERFORMANCE OF HYBRID FIBER-METAL LAMINATES WITH NATURAL AND SYNTHETIC FIBERS**

Vilson Dalla Libera Junior<sup>1,2</sup>, Linconl Araujo Teixeira<sup>2</sup>, Carla Tatiana Mota Anflor<sup>2</sup>, Divino Eterno Teixeira<sup>3</sup>, Sandra Maria da Luz<sup>2</sup>; <sup>1</sup>*Instituto Federal de Educação, Ciência e Tecnologia de Goiás*, <sup>2</sup>*Universidade de Brasília*, <sup>3</sup>*Serviço Florestal Brasileiro*

16:40 **SO2.04.4**

**THERMOPLASTIC CORN STARCH/VISCOSE YARN WASTE BIOCOMPOSITES PROCESSED BY EXTRUSION-COMPRESSION MOLDING**

Renan Ferreira Menegassi de Souza<sup>1</sup>, Márcia Aparecida da Silva Spinacé<sup>1</sup>; <sup>1</sup>*Universidade Federal do ABC*

17:00 **SO2.04.5**

**ELECTROSPUN NANOFIBERS BLENDS PREPARED FROM POLYVINYL ALCOHOL /LIGNIN MIXTURES**

Gabriela Ciribelli Santos Pompêu<sup>1</sup>, Daniel Pasquini<sup>1</sup>, Luis Carlos de Moraes<sup>2</sup>; <sup>1</sup>*Universidade Federal de Uberlândia*, <sup>2</sup>*Universidade Federal do Triângulo Mineiro*

**SESSION SO2 (15:30 - 17:20) - - TA Instruments**

16:00 **SO2.03.2**

**ORGANIC-INORGANIC PHOTOPOLYMERIZABLE NANOCOMPOSITES FOR 3D PRINTING WITH ANTIVIRAL ACTIVE SURFACES**

Tamires da Silva Lima<sup>1</sup>, Ivani Malvestiti<sup>1</sup>, Petrus Santa-Cruz<sup>1</sup>; <sup>1</sup>*Universidade Federal de Pernambuco*

16:20 **SO2.03.3****B-CYCLODEXTRIN FUNCTIONALIZED WITH CARBON QUANTUM DOTS AS ADSORBENT SENSORS OF METALLIC SPECIES IN AQUEOUS ENVIRONMENTS**Emilly Cruz da Silva<sup>1</sup>, Charlie Guimarães Gomes<sup>1</sup>, João Pina<sup>2</sup>, Artur José Monteiro Valente<sup>2</sup>, André Fajardo<sup>1</sup>; <sup>1</sup>*Universidade Federal de Pelotas*, <sup>2</sup>*Universidade de Coimbra*16:40 **SO2.03.4****REUSABLE CELLULOSE NANOFIBRILS-BASED NANOCOMPOSITE AEROGELS FOR MALACHITE GREEN DYE REMOVAL**Amanda Alves Domingos Maia<sup>1</sup>, Pedro Ivo Cunha Claro<sup>1</sup>, Marcos Vinicius Lorevice<sup>1</sup>, Rubia Figueredo Gouveia<sup>1</sup>; <sup>1</sup>*Brazilian Center for Research in Energy and Materials*17:00 **SO2.03.5****SYNTHESIS AND CHARACTERIZATION OF GELATIN AND STARCH NANOPARTICLES FOR INTELLIGENT MICROGELS PREPARATION**Nádyá Pesce da Silveira<sup>1</sup>, Roberta Nátali do Amaral Zucatti<sup>1</sup>, Daiani Canabarro Leite<sup>2</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*, <sup>2</sup>*Universidade Federal de Santa Maria***SESSION SO2 (15:30 - 17:20) - - CREA**16:00 **SO2.07.2****SUPERCritical CO<sub>2</sub> FOAMING AND DEGRADATION BEHAVIOR OF PBAT/PLA BLENDS FOR ENHANCING LIGHTWEIGHT BIOPOLYMER**Guilherme de Macedo Rooweder Lima<sup>1</sup>, Michiel F. Meindersma<sup>1</sup>, Advit Mukherjee<sup>1</sup>, Daniele Parisi<sup>1</sup>, Francesco Picchioni<sup>1</sup>, Ranjita K. Bose<sup>1</sup>; <sup>1</sup>*University of Groningen / Rijksuniversiteit Groningen*16:20 **SO2.07.3****EVALUATION OF THE BACTERIAL CELLULOSE DEGRADATION OF MEMBRANES IN NATURAL ATMOSPHERE OF THE SERTÃO REGION**Amanda Caroline de Oliveira Diniz<sup>1</sup>, José Francielson Queiroz Pereira<sup>2</sup>, Jackson Rodrigo dos Santos Silva<sup>2</sup>, Gabriel Bercley de Lima Vitorino<sup>2</sup>, Andréa Monteiro Santana Silva Brito<sup>2</sup>, Glória Maria Vinhas<sup>1</sup>; <sup>1</sup>*Universidade Federal de Pernambuco*, <sup>2</sup>*Universidade Federal Rural de Pernambuco*16:40 **SO2.07.4****"BEYOND SYNTHESIS: HOW ECOTOXICOLOGY CAN HELP DEVELOP SUSTAINABLE POLYMERIC MATERIALS"**Marcelo Gryczak<sup>1</sup>, Tales da Silva Daitx<sup>1</sup>, Douglas Gamba<sup>1</sup>, Cesar Liberato Petzhold<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul***SESSION SO2 (15:30 - 17:20) - - dpUNION Instrumentação Analítica**16:00 **SO2.08.2****DEVELOPMENT OF CHITOSAN-BASED NANOPARTICLES FOR DOUBLE ENCAPSULATION OF 5-FLUOROURACIL AND METHOTREXATE**José Ribamar Paiva Junior<sup>1</sup>, Aline Teixeira dos Santos<sup>1</sup>, Eric Paiva Bandeira<sup>1</sup>, Judith P A Feitosa<sup>1</sup>; <sup>1</sup>*Universidade Federal do Ceará*16:20 **SO2.08.3****EXTRUSION OF POLYCAPROLACTONE AND F18 BIOACTIVE FILLER COMPOSITES**Thiago de Assis Augusto<sup>1</sup>, Lidiane Cristina Costa<sup>1</sup>, Murilo Camuri Crovace<sup>1</sup>; <sup>1</sup>*Universidade Federal de São Carlos*

16:40 **SO2.08.4**

**DEVELOPMENT OF COPOLYMER FILAMENT FOR 3D PRINTING BASED ON POLY(L-LACTIC ACID-CO-TRIMETHYLENE CARBONATE)**

Gabriela Aline Dias<sup>1</sup>, Sergio Henrique Pezzin<sup>2</sup>; <sup>1</sup>*Universidade do Estado de Santa Catarina*, <sup>2</sup>*Fundação Universidade do Estado de Santa Catarina*

**TUESDAY, OCTOBER 31**

**SESSION SO3 (10:00 - 12:10) - - Instron Brasil**

10:30 **SO3.09.2**

**SYNTHESIS OF POLYANILINE ON PLASMA TREATED CARBON FIBER TEXTILE FOR SUPERCAPACITOR APPLICATIONS**

Carla Dalmolin<sup>1</sup>, Wilma de Medeiros<sup>1</sup>, Luis César Fontana<sup>1</sup>; <sup>1</sup>*Fundação Universidade do Estado de Santa Catarina*

10:50 **SO3.09.3**

**FUNCTIONAL POROUS MATERIALS FROM LIGNOCELLULOSE**

Denise Freitas Siqueira Petri<sup>1</sup>; <sup>1</sup>*Universidade de São Paulo*

11:10 **SO3.09.4**

**FUNCTIONALIZATION OF TEXTILE SUBSTRATE WITH CONDUCTIVE POLYMER**

Ludimilla Barbosa Ferreira<sup>1</sup>, Pedro Bachmann<sup>1</sup>, Claudia Merlini<sup>1</sup>, Fernanda Steffens<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina*

11:30 **SO3.09.5**

**COTTON FABRIC FUNCTIONALIZED WITH CHITOSAN AND NEEM SEED OIL AIMING REPELLENT TEXTILE APPLICATIONS**

Quesli Martins<sup>1</sup>, Cristiane da Costa<sup>1</sup>, Andrea Cristiane Krause Bierhalz<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina*

**SESSION SO3 (10:00 - 12:10) - - Zwick Roell Ltda**

10:30 **SO3.02.2**

**EFFECT OF STORAGE TIME ON RETROGRADATION OF EXTRUDED THERMOPLASTIC STARCH**

Kelly Lucas Lizano<sup>1</sup>, Antonio Aprigio da Silva Curvelo<sup>1</sup>, Antonio José Felix Carvalho<sup>1</sup>; <sup>1</sup>*Universidade de São Paulo*

10:50 **SO3.02.3**

**BIOPOLYMERIC COATINGS FOR FOOD PRESERVATION: CHARACTERIZATION STUDY**

Vitória Souza Marques<sup>1</sup>, Maryana Melo Frota<sup>1</sup>, Kelvi Wilson Evaristo Miranda<sup>1</sup>, Maria Gleiciane Soares Coutinho<sup>2</sup>, Adriano Lincoln Albuquerque Mattos<sup>3</sup>, Maria do Socorro Rocha Bastos<sup>3</sup>; <sup>1</sup>*Universidade Federal do Ceará*, <sup>2</sup>*Universidade Estadual do Ceará*, <sup>3</sup>*Empresa Brasileira de Pesquisa Agropecuária*

11:10 **SO3.02.4**

**EVALUATION OF THE THERMAL PROPERTIES OF BACTERIAL CELLULOSE FILMS ADDED WITH EXTRACT OF *CAESALPINIA FERREA MART.***

Viviane Fonseca Caetano<sup>1</sup>, Amanda Caroline de Oliveira Diniz<sup>1</sup>, Alice da Conceição Alves de Lima<sup>1</sup>, Angela Maria de Menezes Santos<sup>1</sup>, Ivo Diego de Lima Silva<sup>1</sup>, Michelle Félix de Andrade<sup>1</sup>, Glória Maria Vinhas<sup>1</sup>; <sup>1</sup>*Universidade Federal de Pernambuco*

11:30 **SO3.02.5****THERMAL, RHEOLOGICAL AND MECHANICAL PROPERTIES OF EPOXY RESIN FORMULATIONS**

Tainá Klein<sup>1</sup>, Cristiane da Silva Fonseca<sup>1</sup>, Daiane Romanzini<sup>2</sup>, Sandro Campos Amico<sup>1</sup>, Otávio Bianchi<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*, <sup>2</sup>*Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul*

11:50 **SO3.02.6****TENSILE AND INDENTATION ANALYSIS OF THERMOPLASTIC POLYMERS: PP AND ABS**

Karoline Sales de Oliveira Gusmão<sup>1</sup>, Sandra Maria da Luz<sup>1</sup>, Thiago de Carvalho Rodrigues Doca<sup>1</sup>; <sup>1</sup>*Universidade de Brasília*

**SESSION SO3 (10:00 - 12:10) - - Krona**10:30 **SO3.04.2****COMPARATIVE STUDY OF METHODS FOR PRODUCING STARCH/PVA BLEND FILMS BY CASTING**

Helen Kotekewis<sup>1</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*

10:50 **SO3.04.3****STATISTICAL EVALUATION OF ELECTROMAGNETIC ABSORPTIVITY OF PDMS/CNT/GNP COMPOSITES**

Alessandra de Alencar Padua Gabino<sup>1</sup>, Bluma Guenther Soares<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio de Janeiro*

11:10 **SO3.04.4****DIFFERENT MOLAR MASS OF PEG-B-PPG-B-PEG TRIBLOCK COPOLYMER: EFFECT ON THERMOSETTING SYSTEMS**

Lohana Vieira Bataglini<sup>1</sup>, Rafaela Fatima Cossul<sup>1</sup>, Luana Bettanin<sup>1</sup>, Marlene Bampi<sup>1</sup>, Marcia Bär Schuster<sup>1</sup>, Bruna Louise Silva<sup>1</sup>; <sup>1</sup>*Fundação Universidade do Estado de Santa Catarina*

11:30 **SO3.04.5****EFFECTS OF ELECTROPHORETIC DEPOSITION OF CARBON NANOTUBES ON JUTE FIBERS**

Amanda Valcanaia<sup>1</sup>, Kelvin Masakazu Kuroki Iwasaki<sup>2</sup>, Ricardo de Medeiros<sup>2</sup>, Luis César Fontana<sup>2</sup>, Daniela Becker<sup>2</sup>; <sup>1</sup>*Universidade do Estado de Santa Catarina*, <sup>2</sup>*Fundação Universidade do Estado de Santa Catarina*

**SESSION SO3 (10:00 - 12:10) - - TA Instruments**10:30 **SO3.03.2****TERMOPLASTIC STARCH NANOCOMPOSITES REINFORCED WITH NANOFIBRILLATED CELLULOSE: PLASTICIZATION WITH GLYCEROL IN THE PRESENCE OF WATER AS PROCESS PLASTICIZER**

Annette Daphne Cochon Lipa<sup>1</sup>, Kelly Lucas Lizano<sup>1</sup>, Antonio José Felix Carvalho<sup>1</sup>; <sup>1</sup>*Universidade de São Paulo*

10:50 **SO3.03.3****FEW-LAYER GRAPHENE PRODUCTION THROUGH GRAPHITE EXFOLIATION IN PRESSURIZED CO<sub>2</sub>**

Thuany Garcia Maraschin<sup>1,2</sup>, Raiane Valenti Gonçalves<sup>3</sup>, Marina Clara de Vargas<sup>1</sup>, Nara Regina de Souza Basso<sup>1</sup>, Eduardo Cassel<sup>1</sup>, Griselda Barrera Galland<sup>3</sup>; <sup>1</sup>*Pontifícia Universidade Católica do Rio Grande do Sul*, <sup>2</sup>*Pontifícia Universidade Católica do Rio Grande do Sul*, <sup>3</sup>*Universidade Federal do Rio Grande do Sul*

11:10 **SO3.03.4**

**THERMAL, MECHANICAL AND MORPHOLOGICAL CHARACTERIZATION OF THE PLA-TIO<sub>2</sub>-MWCNT FOR 3D PRINTING FILAMENTS**

Milena Macedo Nogueira<sup>1</sup>, Bruno Alexandro Bewzenko Cordova<sup>1</sup>, Benjamim de Melo Carvalho<sup>1</sup>; <sup>1</sup>*Universidade Estadual de Ponta Grossa*

11:30 **SO3.03.5**

**MODIFICATION OF SYNTHESIS ROUTE AND AGGREGATION ANALYSIS OF SILICA NANOPARTICLES FOR CORE-SHELL STRUCTURE**

Giulia Silveiras Vieira<sup>1</sup>, Grazielle Lopes<sup>2</sup>, Luciana S. Spinelli<sup>2</sup>; <sup>1</sup>*Universidade Federal do Rio de Janeiro*, <sup>2</sup>*Instituto de Macromoléculas Professora Eloísa Mano*

11:50 **SO3.03.6**

**PLASMA-FUNCTIONALIZED CARBON NANOTUBES FOR THE ADSORPTION OF RHODAMINE-B IN WATER**

Julya Franco Lima<sup>1</sup>; <sup>1</sup>*Universidade do Estado de Santa Catarina*

**SESSION SO3 (10:00 - 12:10) - - CREA**

10:30 **SO3.07.2**

**INCORPORATION OF BIO-BASED MATERIALS IN COMERCIAL POLYMERS: STUDY OF POLY(BUTYLENE-ADIPATE-CO-TEREPHTHALATE)/WHEY PROTEIN ISOLATE BLENDS**

Marina Fernandes Cosate de Andrade<sup>1</sup>, Ana Rita Morales<sup>1</sup>; <sup>1</sup>*Universidade Estadual de Campinas*

10:50 **SO3.07.3**

**SYNTHESIS OF NEW SUSTAINABLE POLYESTER-TYPE HYDROGELS FROM CHEMICAL RECYCLED POLY(ETHYLENE TEREPHTHALATE) APPLIED IN THE REMOVAL OF INDIGO CARMINE DYE.**

Daniela Eduarda Schneider<sup>1</sup>, Tomás de Mesquita Simioni<sup>1</sup>, César Liberato Petzhold<sup>1</sup>, Tales da Silva Daitx<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*

11:10 **SO3.07.4**

**MECHANICAL BEHAVIOR OF CASSAVA STARCH BIOFILMS WITH WINE INDUSTRY BY-PRODUCTS PARTICLES.**

Bruna Passaia Zanfonato<sup>1</sup>, Nicole Marque da Costa<sup>1</sup>, Rafael Schlaucher Krass Zaccarão<sup>1</sup>, Andréia Zilio Dinon<sup>1</sup>, Marcia Bär Schuster<sup>1</sup>; <sup>1</sup>*Fundação Universidade do Estado de Santa Catarina*

11:50 **SO3.07.6**

**REGENERATED CELLULOSE FILAMENTS OBTAINED FROM TEXTILE COTTON WASTE RECYCLING USING IONIC LIQUID**

Beatriz Barbosa de Brito<sup>1</sup>, Beatriz Krüger<sup>1</sup>, Rita de Cássia Siqueira Curto Valle<sup>1</sup>, Cintia Marangoni<sup>1</sup>, Andrea Cristiane Krause Bierhalz<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina*

**SESSION SO3 (10:00 - 12:10) - - dpUNION Instrumentação Analítica**

10:50 **SO3.08.3**

**IN VITRO RELEASE AND IN VIVO PHARMACOKINETICS OF PRAZIQUANTEL LOADED IN PMMA-CO-DEAEMA SMART MICROPARTICLES**

Emiliane Daher Pereira<sup>1</sup>, Luciana da Silva Dutra<sup>1</sup>, Thamiris Franckini Paiva<sup>2</sup>, Larissa Leite de Almeida Carvalho<sup>1</sup>, Guilherme Ferreira Ornellas<sup>1</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio de Janeiro*, <sup>2</sup>*Cetiqt*

**WEDNESDAY, NOVEMBER 01****SESSION SO4 (10:00 - 12:10) - - Instron Brasil**10:30 **SO4.09.2****POLYETHERIMIDE MEMBRANES FOR SEPARATION OF SYNTHETIC EFFLUENT**Pamela Thainara Vieira da Silva<sup>1</sup>, Vanessa da Nobrega Medeiros<sup>1</sup>, Renê Anisio da Paz<sup>1</sup>, Bruna Aline Araujo<sup>1</sup>, Rafael Agra Dias<sup>1</sup>, Edcleide Maria Araújo<sup>1</sup>; <sup>1</sup>*Universidade Federal de Campina Grande*10:50 **SO4.09.3****EFFECTS OF A CHITOSAN/GELATIN AND POMEGRANATE (*PUNICA GRANATUM L.*) PEEL EXTRACT COATING ON THE PHYSICOCHEMICAL AND SHELF-LIFE OF PAPAYA (*CARICA PAPAYA L.*) FRUITS**Mirella Romanelli Vicente Bertolo<sup>1</sup>, Cristiane Temporine Moreira<sup>1</sup>, Stanislaw Bogusz Jr<sup>1</sup>; <sup>1</sup>*Universidade de São Paulo*11:10 **SO4.09.4****BIODEGRADATION OF POLYELECTROLYTE COMPLEXES IN ULTISOL CONDITIONING: PHYSICOCHEMICAL AND MICROBIOLOGICAL MONITORING**Rafael Fernandes Pinto da Rocha<sup>1</sup>, Marcia Parente Melo da Costa<sup>1</sup>, Antonio Carlos Augusto da Costa<sup>1</sup>, Ivana Lourenço de Mello Ferreira<sup>1</sup>; <sup>1</sup>*Universidade do Estado do Rio de Janeiro*11:30 **SO4.09.5****THE EFFECT OF HUMIDIFICATION WITH SALINE SOLUTION ON IMPEDANCE MEASUREMENTS OF ELETROSPUN PVC/CNT MEMBRANES**Marcio Briesemeister<sup>1</sup>, John A Gomez-Sanchez<sup>1</sup>, Pedro Bertemes Filho<sup>1</sup>, Sergio Henrique Pezzin<sup>1</sup>; <sup>1</sup>*Fundação Universidade do Estado de Santa Catarina*11:50 **SO4.09.6****ENCAPSULATION OF COPAIBA ESSENCIAL OIL AND JOJOBA VEGETABLE OIL IN BIOPOLYMERIC NANOPARTICLES**Raphael Ferreira dos Santos Baraldi<sup>1</sup>, Cristiane da Costa<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina***SESSION SO4 A (10:00 - 12:10) - - TA Instruments**10:30 **SO4.04.2****DEVELOPMENT AND CHARACTERIZATION OF UPCONVERSION COMPOSITE FILMS OF CELLULOSE ACETATE-BUTYRATE/NAYF<sub>4</sub>:YB<sup>3+</sup>, ER<sup>3+</sup> FOR LUMINESCENT THERMOMETRY APPLICATIONS**Matheus Vicente Barbosa Silva<sup>1</sup>, Lucas Henrique Pereira<sup>2</sup>, York Estewin Serge-Correaes<sup>2</sup>, Fábio José Caixeta<sup>2</sup>, Sidney José Lima Ribeiro<sup>2</sup>, Rosana Maria Nascimento de Assunção<sup>1</sup>, Harumi Otaguro<sup>3</sup>; <sup>1</sup>*Universidade Federal de Uberlândia*, <sup>2</sup>*Instituto de Química de Araraquara*, <sup>3</sup>*Universidade Federal do Paraná*10:50 **SO4.04.3****SPECTROSCOPIC, ELETRICAL AND MORPHOLOGICAL CHARACTERIZATIONS OF CONDUCTIVE POLYMER HYDROGELS FOR APPLICATION IN HYBRID SUPERCAPACITORS**Denis Welton da Silva Nascimento<sup>1</sup>, Marcia Regina de Moura Aouada<sup>1</sup>, José Antonio Malmonge<sup>1</sup>, Fauze Ahmad Aouada<sup>2</sup>; <sup>1</sup>*Universidade Estadual Paulista*, <sup>2</sup>*FEIS/UNESP*

11:10 **SO4.04.4**

**PRODUCTION OF POLYSULPHONE/ALUMINE HOLLOW FIBER MEMBRANES FOR WASTEWATER TREATMENT**

Vanessa da Nobrega Medeiros<sup>1</sup>, Andréa Deyse P. da Silva<sup>1</sup>, Edcleide Maria Araújo<sup>1</sup>, Renê Anisio da Paz<sup>1</sup>, Pamela Thainara Vieira da Silva<sup>1</sup>, Sandriely Sonaly Lima Oliveira<sup>1</sup>; <sup>1</sup>*Universidade Federal de Campina Grande*

11:30 **SO4.04.5**

**EVALUATION OF THE PHYSICAL AND MECHANICAL PROPERTIES OF POLYMERIC BLENDS WITH RESIDUES OF POLYPROPYLENE MASKS**

Anderson Ravik dos Santos<sup>1</sup>, Tiago Vieira da Silva<sup>1</sup>, Ítalo Rocha Coura<sup>2</sup>, Patrícia Santiago de Oliveira Patrício<sup>2</sup>, Wanna Carvalho Fontes<sup>1</sup>, Alexandro de Azevedo Silva<sup>2</sup>; <sup>1</sup>*Universidade Federal de Ouro Preto*, <sup>2</sup>*Centro Federal de Educação Tecnológica de Minas Gerais*

11:50 **SO4.04.6**

**EXTRUSION SEQUENCE FOR ENHANCED DISPERSION OF MICROFIBRILLATED CELLULOSE IN PLA/PCL BLENDS: IMPACT ON MORPHOLOGY AND MECHANICAL PROPERTIES**

Marcelo Chinelatto<sup>1</sup>, Paula do Patrocínio Dias<sup>2,1</sup>; <sup>1</sup>*Universidade de São Paulo*, <sup>2</sup>*Faculdade de Tecnologia Senai Cimatec*

**SESSION SO4 (10:00 - 12:10) - - Krona**

10:30 **SO4.03.2**

**APPLICATION OF GRAPHENES IN LDPE FOR FILMS: STUDY OF PARTICLE SIZE AND MECHANICAL PROPERTIES**

Pamela Sierra Garcia<sup>1</sup>, Neuma Pereira<sup>2</sup>, Giuliana Mitri<sup>2</sup>, Irina Marinho Factori<sup>2</sup>, Ana Clélia Babetto Ferreira<sup>2</sup>, Anderson Maia<sup>2</sup>, Gustavo Spina<sup>2</sup>, Josué Marciano de Oliveira Cremonuzzi<sup>1</sup>, Valdirene Sullas Teixeira Peressinotto<sup>1</sup>; <sup>1</sup>*Gerdau Graphene*, <sup>2</sup>*Senai Mario Amato*

11:10 **SO4.03.4**

**INTERVENTIVE CONSERVATION OF RIGID POLYURETHANE FOAM BY MEANS OF TITANIUM DIOXIDE-BASED NANOCOATING**

Diana Bulcão Duarte Simões<sup>1</sup>, Raquel Santos Mauler<sup>1</sup>, Tales da Silva Daitx<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*

11:30 **SO4.03.5**

**SURFACE BIOMODIFICATION OF COTTON FABRIC WITH CHITOSAN NANOPARTICLES CONTAINING ESSENTIAL OILS**

Fernanda Cristina da Rosa<sup>1</sup>, Pedro Gabriel Valente Silva<sup>1</sup>, Amanda Carla Melo<sup>1</sup>, Patrícia Bulegon Brondani<sup>1</sup>, Larissa Nardini Carli<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina*

11:50 **SO4.03.6**

**PHBV NANOCOMPOSITES WITH KAOLIN NANOPARTICLES MODIFIED WITH OREGANO ESSENTIAL OIL FOR APPLICATION IN FOOD PACKAGING**

Pâmela Rosa Oliveira<sup>1</sup>, Renata Cerruti da Costa<sup>1</sup>, Janaina da Silva Crespo<sup>2</sup>, Tales da Silva Daitx<sup>3</sup>, Marília Miotto<sup>1</sup>, Daiane Mara Bobermin<sup>1</sup>, Cristiano da Silva Teixeira<sup>1</sup>, Ismael Casagrande Bellettini<sup>1</sup>, Larissa Nardini Carli<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina*, <sup>2</sup>*Universidade de Caxias do Sul*, <sup>3</sup>*Universidade Federal do Rio Grande do Sul*

**SESSION SO4 (10:00 - 12:10) - - CREA****10:50 SO4.07.3****TGA MONITORING OF THE GLYCOLYSIS OF HIGH TENACITY POLYESTER FIBER FROM MOORING LINES**

Elaine Meireles Senra<sup>1</sup>, Renan Henriques Gonçalves de Almeida<sup>1</sup>, Ana Lúcia Nazareth da Silva<sup>1</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>, Elen Vasques Pacheco<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio de Janeiro*

**11:10 SO4.07.4****POLYAMIDE 6 TEXTILE RECYCLING: AN EVALUATION OF THE USE OF CARBODIIMIDE**

Graziela Solferini Baccharin<sup>1</sup>, Lucas Henrique Staffa<sup>2</sup>, Sandra Cruz<sup>2</sup>; <sup>1</sup>*Universidade Federal de São Carlo - Campus São Carlos*, <sup>2</sup>*Univerdade Federal de São Carlos*

**11:30 SO4.07.5****POLYSACCHARIDES AND ECO-FRIENDLY PACKAGING: TRENDS AND INNOVATIONS**

Ana Luísa de Barros<sup>1</sup>, Giovany Eduardo Rodrigues de Moraes<sup>1</sup>, Huéberton Barbosa Naves<sup>1</sup>, Fabíola Medeiros da Costa<sup>1</sup>, Sidney Souza Dos Santos<sup>1</sup>, Fauze Ahmad Aouada<sup>1</sup>, Marcia Regina de Moura Aouada<sup>2,1</sup>; <sup>1</sup>*FEIS/UNESP*, <sup>2</sup>*Universidade Estadual Paulista*

**11:50 SO4.07.6****EVALUATION OF PLASTIC DEGRADATION UNDER SEMI-CONTROLLED ENVIRONMENTAL CONDITIONS**

Victor Zeferino e Resende<sup>1</sup>, Beatriz De Caroli Vizioli<sup>1</sup>, Cassiana Carolina Montagner<sup>1</sup>; <sup>1</sup>*Universidade Estadual de Campinas*

**SESSION SO4 B (10:00 - 12:10) - - dpUNION Instrumentação Analítica****10:30 SO4.04.8****A STUDY OF MIXED-MATRIX POLYSULFONE-RECAM® FILTRATION MEMBRANE MORPHOLOGY**

Priscila Anadão<sup>1</sup>, Fabio Esper<sup>1</sup>, Hélio Wiebeck<sup>2</sup>; <sup>1</sup>*DEPARTAMENTO de ENG. METALÚRGICA e de MATERIAIS da ESCOLA POLITÉCNICA da USP*, <sup>2</sup>*ESCOLA POLITÉCNICA da USP*

**11:10 SO4.04.10****EVALUATION OF GRAPHENE INCORPORATION FOR MECHANICAL PROPERTIES OF POLYPROPYLENE COMPOSITES**

Julio Harada<sup>1</sup>, Maria da Conceição Costa Pereira<sup>2</sup>, Claudio Ap. Marcondes<sup>3</sup>, Leonardo Gondim de Andrade e Silva<sup>1</sup>; <sup>1</sup>*Instituto de Pesquisas Energéticas e Nucleares*, <sup>2</sup>*Instituto de Pesquisas Energeticas e Nucleares*, <sup>3</sup>*Universidade Estadual de Campinas*

**11:30 SO4.04.11****SYNTHESIS AND CHARACTERIZATION OF FLAT MEMBRANES FROM POLYMERIC BLENDS**

Rafael Agra Dias<sup>1</sup>, Pamela Thainara Vieira da Silva<sup>1</sup>, Rodolfo da Silva Barbosa Ferreira<sup>2</sup>, Vanessa da Nobrega Medeiros<sup>1</sup>, Bruna Aline Araujo<sup>1</sup>, Edcleide Maria Araújo<sup>1</sup>, Helio Lucena Lira<sup>1</sup>; <sup>1</sup>*Universidade Federal de Campina Grande*, <sup>2</sup>*Instituto Nacional do Semi-Árido*

11:50 **SO4.04.12**

**EFFECT OF THE INCORPORATION OF LIGNIN ON STARCH/PVA BLEND FILMS PRODUCED BY CASTING**

Helen Kotekewis<sup>1</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*

**SESSION S05 (15:10 - 16:20) - - dpUNION Instrumentação Analítica**

15:40 **S05.05.2**

**INJECTION OVERMOLDED POLYMER-METAL HYBRID STRUCTURES**

Leonardo Bresciani Canto<sup>1</sup>, Gean Henrique Marcatto de Oliveira<sup>2</sup>, Rayana Larissa Vasconcelos<sup>2</sup>, Mário Augusto Morozo<sup>3</sup>, Renan Adatao<sup>3</sup>, Giuliana De Mitri Luiz<sup>2</sup>; <sup>1</sup>*Universidade Federal de São Carlo - Campus São Carlos*, <sup>2</sup>*Universidade Federal de São Carlos*, <sup>3</sup>*Univerdade Federal de São Carlos*

16:00 **S05.05.3**

**INFLUENCE OF PRINT ORIENTATION ON THE MECHANICAL PROPERTIES OF 3D-PRINTED PLA AND PETG MATERIALS**

Lucas Leon Brincas Ramos<sup>1</sup>, Rafael Beck<sup>1</sup>, Kelvin Masakazu Kuroki Iwasaki<sup>1</sup>, Luis Guilherme Silva Rosa<sup>1</sup>, Daniela Becker<sup>1</sup>, Ricardo de Medeiros<sup>1</sup>; <sup>1</sup>*Fundação Universidade do Estado de Santa Catarina*

**SESSION S05 (15:10 - 16:20) - - Zwick Roell Ltda**

15:40 **S05.01.2**

**FORMALDEHYDE MIGRATION STUDY IN POLYOXYMETHYLENE FROM COSMETICS INDUSTRY PACKAGING COMPONENTS BY EXTRACTABLE TESTING AND GCMS**

Guilherme M. Menegasso<sup>1</sup>, Jonathan dos Santos<sup>2</sup>, Letícia B. Cerqueira<sup>2</sup>, Leandro C. Gonçalves<sup>2</sup>, Fernanda Gabriela Henning<sup>2</sup>, Desiree Schuck<sup>2</sup>, Marcia Priscila Porto dos Santos<sup>2</sup>; <sup>1</sup>*Euvaldo Lodi Institute, Curitiba, PR, Brazil*, <sup>2</sup>*Cencoderma Institute*

16:00 **S05.01.3**

**ASSESSING THE CURING PROCESS OF LIMONENE DIOXIDE USING DSC ANALYSIS**

Mauricio Carpe Diem Ferreira Xavier<sup>1</sup>, Otávio Bianchi<sup>1</sup>, Sandro Campos Amico<sup>1</sup>, César Liberato Petzhold<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*

**SESSION S05 (15:10 - 16:20) - - TA Instruments**

15:40 **S05.03.2**

**TENSILE AND INDENTATION TESTS ON CARBON NANOSTRUCTURES AND EPOXY RESIN COMPOSITES**

Helena Rafaela Fava Monteiro Guimarães<sup>1</sup>, Karoline Sales de Oliveira Gusmão<sup>1</sup>, Thiago de Carvalho Rodrigues Doca<sup>1</sup>, Joziel Aparecido da Cruz<sup>2</sup>, Sandro Campos Amico<sup>2</sup>; <sup>1</sup>*Universidade de Brasília*, <sup>2</sup>*Universidade Federal do Rio Grande do Sul*

16:00 **S05.03.3**

**IMPROVING THE OPTICAL AND MECHANICAL PROPERTIES OF PVA POLYMER THROUGH THE INCORPORATION OF CARBON DOTS.**

Arthur Hegermann Ferreira<sup>1</sup>, Fabiano Vargas Pereira<sup>1</sup>, Everton Luiz de Paula<sup>1,2</sup>, Rafael Barbosa de Rezende<sup>1</sup>; <sup>1</sup>*Universidade Federal de Minas Gerais*, <sup>2</sup>*Universidade Federal dos Vales do Jequitinhonha E Mucuri*

**SESSION S05 (15:10 - 16:20) - - CREA**15:40 **S05.07.2****POROUS CHITOSAN BIOPOLYMER MEMBRANES BY ACETONE ADDITION AS A TUNABLE NON-SOLVENT COMPONENT**

Angelo Oliveira Silva<sup>1</sup>, Alessandro Rogério Paulazzi<sup>1</sup>, Ricardo Sousa Cunha<sup>1</sup>, Cintia Marangoni<sup>1</sup>, Dachamir Hotza<sup>1</sup>, Ricardo Antonio Francisco Machado<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina*

16:00 **S05.07.3****UV BLOCKING PROPERTIES OF POLYCAPROLACTONE-TRIOL-BASED POLYURETHANE FILMS INCORPORATED WITH CITRUS PEEL EXTRACTS**

Rachel Faverzani Magnago<sup>1</sup>, Roberta Silva da Rocha<sup>1</sup>, Eduarda Melo Lemes<sup>1</sup>, Roberta Cougo Rieffel<sup>2</sup>, Irene Clemes Kulkamp Guerreiro<sup>2</sup>, Karine Modolon Zepon<sup>1</sup>, Jéssica Schaefer Chaves<sup>1</sup>; <sup>1</sup>*Universidade do Sul de Santa Catarina*, <sup>2</sup>*Universidade Federal do Rio Grande do Sul*

**SESSION S05 (15:10 - 16:20) - - Krona**15:40 **S05.04.2****PLASMA FUNCIONALIZATION OF ZINC OXIDE THROUGH ORGANIC COMPOUNDS**

Larissa Aline Klok<sup>1</sup>, Henrique Rigotti Sabedra<sup>1</sup>, Teresa Tromm Steffen<sup>1</sup>, Luis César Fontana<sup>1</sup>, Peter Hammer<sup>2</sup>, Felipe Migliato Marega<sup>3,4</sup>, Lidiane Cristina Costa<sup>3</sup>, Luiz Antonio Pessan<sup>3</sup>, Daniela Becker<sup>1</sup>; <sup>1</sup>*Fundação Universidade do Estado de Santa Catarina*, <sup>2</sup>*Universidade Estadual Paulista*, <sup>3</sup>*Univerdade Federal de São Carlos*, <sup>4</sup>*Universidade Federal de São Carlo - Campus São Carlos*

16:00 **S05.04.3****ESTIMATION OF CREEP AND FATIGUE LONG TERM BEHAVIOR OF A GLASS-FIBER/POLYPROPYLENE COMPOSITE USING SHORT TERM DATA**

Marco Antonio Furlanetto Gobbi<sup>1,2</sup>, Cristiano Richter Schröpfer<sup>1</sup>, Renato Teixeira de Vargas<sup>2</sup>, Cristiano Krug<sup>1</sup>, Tales da Silva Daitx<sup>1</sup>, Maximiliano Segala<sup>1</sup>; <sup>1</sup>*Universidade Federal do Rio Grande do Sul*, <sup>2</sup>*Braskem S/A*

**THURSDAY, NOVEMBER 02****SESSION S06 (10:30 - 11:30) - - Instron Brasil**10:30 **S06.01.1****SYNTHESIS OF ALKYNE-FUNCTIONALIZED CELLULOSE FOR ATTACHMENT OF BIOMOLECULES BY THIOL-YNE CLICK CHEMISTRY**

Marcos Vinícius Ferreira<sup>1</sup>, Anizio Marcio de Faria<sup>1</sup>, Rodrigo Barroso Panatieri<sup>1</sup>, Brent S. Sumerlin<sup>2</sup>, Rosana Maria Nascimento de Assunção<sup>1</sup>; <sup>1</sup>*Universidade Federal de Uberlândia*, <sup>2</sup>*University of Florida*

10:50 **S06.01.2****SYNTHESIS OF STAR-SHAPED DIBLOCK POLY(AMINO ACIDS) BY RING-OPENING POLYMERIZATION OF N-CARBOXYANHYDRIDES**

Daniel José da Silva<sup>1</sup>, Raphael Colonese Vlasman<sup>2</sup>, Luiz Henrique Catalani<sup>1</sup>; <sup>1</sup>*Universidade de São Paulo*, <sup>2</sup>*Instituto de Química*

## SESSION SO6 (10:30 - 11:30) - - dpUNION Instrumentação Analítica

10:50 **SO6.02.2**

### EVALUATION OF PHENOLIC FOAM'S TOXICITY USED IN FLORAL ARRANGEMENTS

Bianca Stefani de Sousa<sup>1</sup>, Lais Montagnini de Brito<sup>1</sup>, Wanessa Algarte Ramsdorf<sup>1</sup>, Adriane Martins de Freitas<sup>1</sup>, Juliana Regina Kloss<sup>1</sup>; <sup>1</sup>*Universidade Tecnológica Federal do Paraná*

## SESSION SO6 (10:30 - 11:30) - - CREA

10:50 **SO6.07.2**

### DEVELOPMENT OF POLYLACTIC ACID MEMBRANE BY PHASE INVERSION ROUTE WITH HIGH POROSITY AND HYDROPHOBICITY

Alessandro Rogério Paulazzi<sup>1</sup>, Angelo Oliveira Silva<sup>1</sup>, Cintia Marangoni<sup>1</sup>; <sup>1</sup>*Universidade Federal de Santa Catarina*

11:10 **SO6.07.3**

### UPCYCLING BANANA PEELS: TRANSFORMING WASTE INTO BIOPLASTIC FILMS WITH SPECIAL PROPERTIES

Rodrigo Duarte Silva<sup>1</sup>, Thalyta F. Pacheco<sup>1</sup>, Amanda D. de Santi<sup>2</sup>, Fabiana Manarelli<sup>3</sup>, Breno R. Bozzo<sup>3</sup>, Michel Brienzo<sup>4</sup>, Caio Gomide Otoni<sup>3</sup>, Henriette Monteiro Cordeiro de Azeredo<sup>1</sup>; <sup>1</sup>*Empresa Brasileira de Pesquisa Agropecuária*, <sup>2</sup>*Universidade de São Paulo*, <sup>3</sup>*Univerdade Federal de São Carlos*, <sup>4</sup>*Universidade Estadual Paulista*

## SESSION SO6 (10:30 - 11:30) - - TA Instruments

10:50 **SO6.03.2**

### BIODEGRADABLE POLYMERIC NANOCOMPOSITES BASED ON POLY(3-HYDROXYBUTYRATE-CO-3-HYDROXYVALERATE) (PHBV) AND GRAPHENE OXIDE (GO)

Guilhermino José Macedo Fachine<sup>1</sup>, Giovanna da C. Silva<sup>1</sup>, Patrícia Moraes Sinohara Souza<sup>2</sup>; <sup>1</sup>*Universidade Presbiteriana Mackenzie*, <sup>2</sup>*Instituto Mackenzie de Pesquisas em Grafeno e Nanotecnologias*

11:10 **SO6.03.3**

### INFLUENCE OF GRAPHENE AND GLASS FIBER ADDITIONS ON MECHANICAL AND RHEOLOGICAL PROPERTIES OF POLYPROPYLENE COPOLYMER

Charles Antonio Ost<sup>1</sup>, Artur Serpa de Carvalho Rego<sup>2</sup>, Monique C.R. de Camargo<sup>2</sup>, Rodrigo Denizarte de Oliveira Polkowski<sup>2</sup>, Ricardo Ferreira Cavalcanti de Albuquerque<sup>2</sup>, Diego Piazza<sup>1</sup>, Ademir José Zattera<sup>1</sup>; <sup>1</sup>*Universidade de Caxias do Sul*, <sup>2</sup>*Ford Motor Company*

## SESSION SO6 (10:30 - 11:30) - - Krona

10:30 **SO6.04.1**

### INTERFACIAL IMPROVEMENT OF JUTE FIBRE EPOXY COMPOSITE USING INTERMITTENT HIGH VOLTAGE PULSED ELECTROPHORESIS DEPOSITION

Kelvin Masakazu Kuroki Iwasaki<sup>1</sup>, Amanda Valcanaia<sup>2</sup>, Gustavo Zucco<sup>1</sup>, Ricardo de Medeiros<sup>1</sup>, Luis César Fontana<sup>1</sup>, Daniela Becker<sup>1</sup>; <sup>1</sup>*Fundação Universidade do Estado de Santa Catarina*, <sup>2</sup>*Universidade do Estado de Santa Catarina*

11:10 **SO6.04.3**

**EFFECT OF PH ON THE ADSORPTION OF METHYLENE BLUE IN  
PECTIN/MONTMOROLINITE COMPOSITE HYDROGEL**

Wilson Bokorny Fernandes Filho<sup>1</sup>, Mirlene Pereira Vitorino<sup>1</sup>, Karine Priscila Naidek<sup>1</sup>, Alexandre Tadeu Paulino<sup>1</sup>; <sup>1</sup>*Universidade do Estado de Santa Catarina*

## POSTER PRESENTATIONS

MONDAY, OCTOBER 30

Session P01(17:30 - 19:00) - poster area

**PO1.01.1 SYNTHESIS OF POLY(GLOBALIDE) BY ENZYMATIC RING-OPENING POLYMERIZATION USING GERANIOL AS INITIATOR**

Amanda Vasconcelos Farias<sup>1</sup>, Gustavo Giovanardi<sup>1</sup>, Tamara Agner<sup>1</sup>, Pedro Henrique Hermes de Araújo<sup>1</sup>, Claudia Sayer<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO1.01.2 SYNTHESIS OF EUGENOL EPOXY FOR VITRIMERIC POLYMERS**

Angela Yeissel Becerra Lovera<sup>1</sup>, Diego de Holanda S. Souza<sup>1</sup>, Marcos Lopes Dias<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO1.01.3 STRUCTURE ASSESSMENT OVER TIME OF HYDROXYPROPYLATED STARCH GRANULES**

Aparecido Junior de Menezes<sup>1</sup>, Daniel Komatsu<sup>2,3</sup>, Alain Dufresne<sup>4</sup>, Henrique Solowej Medeiros Lopes<sup>1,2</sup>; <sup>1</sup>Universidade Federal de São Carlos - Campus Sorocaba, <sup>2</sup>Faculdade de Tecnologia de Sorocaba, <sup>3</sup>Pontifícia Universidade Católica de São Paulo, Campus Sorocaba, <sup>4</sup>The International School of Paper, Print Media and Biomaterials, Grenoble Institute of Technology

**PO1.01.7 SYNTHESIS OF PH-RESPONSIVE NANOPARTICLES FOR THE DEVELOPMENT OF STARCH-BASED SMART PACKAGING**

Emmanuelle Gouveia David<sup>1</sup>, Douglas Gamba<sup>1</sup>, Tales da Silva Daitx<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO1.01.8 PRODUCTION OF HIGH-PERFORMANCE ACETOSOLV COCONUT FIBER LIGNIN-INCORPORATED DGEBA CURED WITH APROTIC IONIC LIQUID**

Vinícius Taveira Andrade Felipe<sup>1</sup>, Jéssica Marques<sup>2</sup>, Mauro Ricardo da Silva Silveira<sup>2</sup>, Carlos Arthur Ferreira<sup>2</sup>, Selma Elaine Mazzetto<sup>3</sup>, Diego Lomonaco<sup>3</sup>, Francisco de Assis Avelino de Figueredo Sobrinho<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Ceará, <sup>2</sup>Universidade Federal do Rio Grande do Sul, <sup>3</sup>Universidade Federal do Ceará

**PO1.01.9 GRAFTING OF POLY(N-VINYLCAPROLACTAM) ON POLYURETHANE BY GAMMA RADIATION**

Grazielle Rozendo de Cerqueira<sup>1</sup>, Rhodivam Lucas Mendes Feitosa<sup>1</sup>, Mariana Alves Henrique<sup>1</sup>, Michelle Félix de Andrade<sup>1</sup>, Felipe Cunha da Silva Trindade<sup>1</sup>, Elmo Silvano de Araujo<sup>1</sup>, Armando Navarro-Vázquez<sup>1</sup>, Wilson Barros Junior<sup>1</sup>, Glória Maria Vinhas<sup>1</sup>, Yêda Medeiros Bastos de Almeida<sup>1</sup>, Carolina Lipparelli Morelli<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

**PO1.01.10 ENZYMATIC SYNTHESIS OF BIO-BASED POLYESTERS CONTAINING LEVOGLUCOSAN UNIT.**

Ivaldo Itabaiana Junior<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO1.01.11 APPLICATION OF HS-GCMS ON THE EVALUATION OF STYRENE MIGRATION FROM COSMETIC PACKAGING BASED ON SAN AND ABS**

Guilherme M. Menegasso<sup>1</sup>, Letícia B. Cerqueira<sup>2</sup>, Jonathan dos Santos<sup>2</sup>, Leandro C. Gonçalves<sup>2</sup>, Fernanda Gabriela Henning<sup>2</sup>, Desiree Schuck<sup>2</sup>, Marcia Priscila Porto dos Santos<sup>2</sup>; <sup>1</sup>Euvaldo Lodi Institute, Curitiba, PR, Brazil, <sup>2</sup>Cencoderma Institute

**PO1.01.12 RADICAL POLYMERIZATION OF HYDROPHOBICALLY MODIFIED WATER-SOLUBLE POLYACRYLAMIDE HAVING OLIGO(LACTIC ACID) AS HYDROPHOBIC MACROMONOMER**

Larissa Regina Rabaioli<sup>1</sup>, Vanessa Martins Picoli<sup>1</sup>, César Liberato Petzhold<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO1.01.13 SYNTHESIS AND CHARACTERIZATION OF POLI(BUTYL ACRYLATECO-FARNESENE) OBTAINED VIA EMULSION POLYMERIZATION**

Lina Dayse Alcantara Rodrigues<sup>1</sup>, Maurício Pinheiro de Oliveira<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO1.01.15 PERFORMANCE OF THE BACTERIAL CELLULOSE HYDROPHOBIZATION PROCESS FOR APPLICATION IN FOOD PACKAGING**

Maryana Melo Frota<sup>1</sup>, Kelvi Wilson Evaristo Miranda<sup>2</sup>, Tiago Marcolino de Souza<sup>3</sup>, Vitória Souza Marques<sup>1</sup>, Maria do Socorro Rocha Bastos<sup>4</sup>, Lucicléia Barros de Vasconcelos<sup>1</sup>; <sup>1</sup>Universidade Federal do Ceará, <sup>2</sup>Department of Food Engineering, Federal University of Ceará (UFC), Fortaleza, CE, Brazil., <sup>3</sup>Universidade Estadual do Amapá, <sup>4</sup>Empresa Brasileira de Pesquisa Agropecuária

**PO1.01.16 24 FACTORIAL DESIGN OF SBS BLOCK COPOLYMER SULFONATION**

Matheus Colovati Saccardo<sup>1</sup>, Ariel Zuquello<sup>2</sup>, Rafael Barbosa<sup>3</sup>, Roger Gonçalves<sup>1</sup>, Kaique Afonso Tozzi<sup>4</sup>, Guilherme Eduardo de Oliveira Blanco<sup>5</sup>, Carlos Henrique Scuracchio<sup>1</sup>; <sup>1</sup>Universidade Federal de São Carlos, <sup>2</sup>Universidade Comunitária da Região de Chapecó, <sup>3</sup>Universidade Federal de São Carlos, <sup>4</sup>Grenoble Institute of Technology Institut polytechnique de Grenoble, <sup>5</sup>Universidade Federal de São Carlo - Campus São Carlos

**PO1.01.17 EFFECTS OF GRAFTING DEGREE ON THE PROPERTIES OF CARBOXYMETHYLCELLULOSE-G-OLIGO(PROPYLENE OXIDE-CO-ETHYLENE OXIDE)**

Nívia do Nascimento Marques<sup>1</sup>, Redouane Borsali<sup>2</sup>, Sami Halila<sup>3</sup>, Rosangela de Carvalho Balaban<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte, <sup>2</sup>Centre de recherches sur les macromolécules végétales, <sup>3</sup>Centre de Recherche sur les Macromolécules Végétales

**PO1.02.20 SYNTHESIS, CHARACTERIZATION AND EVALUATION OF PNVCL THERMORESPONSIVENESS BY DIFFERENT TECHNIQUES**

Rhodivam Lucas Mendes Feitosa<sup>1</sup>, Grazielle Rozendo de Cerqueira<sup>1</sup>, Alessandra de Sousa Lima<sup>1</sup>, Cecilâne Regina Dioclecia da Silva Ribeiro de Assis<sup>1</sup>, Elmo Silvano de Araujo<sup>1</sup>, Armando Navarro-Vázquez<sup>1</sup>, Fernando Hallwass<sup>1</sup>, Yêda Medeiros Bastos de Almeida<sup>1</sup>, Carolina Lipparelli Morelli<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

**PO1.02.23 STUDY OF SURFACE MODIFICATION OF BACTERIAL CELLULOSE BY ATMOSPHERIC PLASMA JET**

Aline da Rosa Almeida<sup>1</sup>, Daniela Becker<sup>1</sup>, Bianca Fusinato<sup>2</sup>, Cristiane Stegemann<sup>2</sup>, Henrique de Sousa Medeiros<sup>2</sup>, Julio Cesar Sagás<sup>2</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina, <sup>2</sup>Fundação Universidade de Santa Catarina

**PO1.02.26 STUDY OF EVA/BENTONITE CLAY-NIOBIUM PENTOXIDE HYBRID SYSTEMS BY DRX AND TD-NMR**

Heliton Barra<sup>1</sup>, Reinaldo Yoshio Morita<sup>1</sup>, Roberta Rizzo Domingues<sup>1</sup>, Juliana Regina Kloss<sup>1</sup>; <sup>1</sup>Universidade Tecnológica Federal do Paraná

**PO1.02.28 EVALUATION OF THE MECHANICAL RESPONSE OF RIGID PLATES BASED ON UHMWPE SUBJECTED TO HIGH STRAIN RATES**

Iana Costa Carvalho<sup>1</sup>, Matheus da Silva Domingos<sup>1</sup>, Amanda L S M Andrezo<sup>1</sup>, Rafael R Dias<sup>1</sup>, Iaci Miranda Pereira<sup>1</sup>; <sup>1</sup>Centro Tecnológico do Exército

**PO1.02.29 THE EFFECT OF ACCELERATED PHOTOAGING ON THE MORPHOLOGICAL, PHYSICAL AND CHEMICAL PROPERTIES OF POLYETHYLENE TEREPHTHALATE (PET) MICROPLASTIC**

Kelven Gabriel de Azevedo da Conceição<sup>1</sup>, Eric Maciel da Silva<sup>1</sup>, Gabriela Zolet Diaz<sup>1</sup>, Thaís Bessa de Oliveira Costa<sup>1</sup>, Diego de Quadros Melo<sup>2</sup>, Carla Bastos Vidal<sup>1</sup>; <sup>1</sup>Universidade Tecnológica Federal do Paraná, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Sertão Pernambucano

**PO1.02.30 THE INFLUENCE OF SYNTHESIS CONDITIONS ON THE CHARACTERISTICS OF POLY(N-ISOPROPYLACRYLAMIDE)**

Maíra Theisen<sup>1</sup>, Heloíse Ribeiro de Barros<sup>1</sup>, Leandro Piovan<sup>1</sup>, Izabel Cristina Riegel Vidotti<sup>1</sup>, Maria Clara da Silva Durigon<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná

**PO1.02.31 EXPERIMENTAL TEST OF THE EFFECT OF TEMPERATURE ON CREEP TEST IN HMPE MULTIFILAMENTS**

Marcelo de Ávila Barreto<sup>1,2</sup>, Daniel Magalhães da Cruz<sup>3,2</sup>, Larissa Basei Zangalli<sup>2</sup>, Aleones José da Cruz Júnior<sup>4</sup>, Tales Luiz Popiolek Júnior<sup>1</sup>, Fernanda Mazuco Clain<sup>1</sup>, Carlos Eduardo Marcos Guilherme<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande, <sup>2</sup>Tecnofibers Desenvolvimento e Tecnologia Ltda, <sup>3</sup>Universidade Federal do Rio Grande do Sul, <sup>4</sup>Instituto Federal de Educação, Ciência e Tecnologia Goiano

**PO1.02.32 EXPERIMENTAL EVALUATION OF ABRASION IN POLYAMIDE FIBERS FOR DIFFERENT SOAKING AND LOAD CONDITIONS**

Marcelo de Ávila Barreto<sup>1,2</sup>, Daniel Magalhães da Cruz<sup>3,2</sup>, Larissa Basei Zangalli<sup>2</sup>, Stephane Pires de Souza<sup>1</sup>, Fernanda Mazuco Clain<sup>1</sup>, Carlos Eduardo Marcos Guilherme<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande, <sup>2</sup>Tecnofibers Desenvolvimento e Tecnologia Ltda, <sup>3</sup>Universidade Federal do Rio Grande do Sul

**PO1.02.34 BENDING TEST OF PLA/CARBON FIBER ELEMENTS PRODUCED BY FDM.**

Reinaldo Silva Jovita Júnior<sup>1</sup>, Erica Cristina Almeida<sup>1</sup>, Clécia Santos Borges<sup>1</sup>, Maria Eduarda Araújo Camargo Alves<sup>1</sup>; <sup>1</sup>Universidade Estadual de Santa Cruz

**PO1.02.35 RHEO-OPTICAL CHARACTERIZATION OF THE SHEAR-INDUCED NON-ISOTHERMAL CRYSTALLIZATION OF POLIAMIDE 6**

Sebastião Vicente Canevarolo Jr.<sup>1</sup>, Felipe Oliveira Campos Bernardo<sup>2</sup>; <sup>1</sup>Universidade Federal de São Carlo - Campus São Carlos, <sup>2</sup>Univerdade Federal de São Carlos

**PO1.02.37 PHYSICOCHEMICAL PROPERTIES OF CHITOSAN-BASED FILMS INCORPORATED WITH INVERTASE ENZYME**

Joyce Fagundes Gomes Motta<sup>1</sup>, Alex Fernando de Almeida<sup>2</sup>, Glêndara A.S. Martins<sup>2</sup>, Soraia Vilela Borges<sup>1</sup>; <sup>1</sup>Universidade Federal de Lavras, <sup>2</sup>Fundação Universidade Federal do Tocantins

**PO1.02.38 MECHANICAL BEHAVIOR IN POLYESTER FIBER RUPTURE FOR DIFFERENT STRAIN RATES**

Stephane Pires de Souza<sup>1</sup>, Marcelo de Ávila Barreto<sup>1,2</sup>, Daniel Magalhães da Cruz<sup>2</sup>, Larissa Basei Zangalli<sup>2</sup>, Fernanda Mazuco Clain<sup>1</sup>, Carlos Eduardo Marcos Guilherme<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande, <sup>2</sup>Tecnofibers Desenvolvimento e Tecnologia Ltda

**PO1.02.40 COMPARATIVE ANALYSIS OF DIFFERENT FILL PATTERNS ON TENSILE STRENGTH IN ASTM D638 TEST SPECIMENS PRODUCED BY ADDITIVE MANUFACTURING**

Vinicius Malveze<sup>1</sup>, Alexandre Aparecido Neves<sup>1</sup>, Carlos Eduardo Carvalho de Jesus<sup>1</sup>, Filipe Gaspar Thomé<sup>1</sup>, Vitor Lopes Zillig Gonçalves<sup>1</sup>; <sup>1</sup>Universidade Anhembi Morumbi

**PO1.03.41 MICROFIBRILLATED CELLULOSE DRYING TECHNIQUES AND MATERIAL PROPERTIES**

Alexandre Oka Thomaz Cordeiro<sup>1</sup>, Kaciane Andreola<sup>2</sup>, Luciane Franquelin Gomes de Souza<sup>2</sup>, Cristiane Reis Martins<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo, <sup>2</sup>Instituto Mauá de Tecnologia

**PO1.03.42 PROCESSING AND MECHANICAL PROPERTIES OF MICROFIBRILLATED CELLULOSE REINFORCED POLYPROPYLENE COMPOSITES**

Alexandre Oka Thomaz Cordeiro<sup>1</sup>, Cristiane Reis Martins<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO1.03.43 ELECTROSPUN MATS WITH ALIGNED FIBERS, BASED ON POLY(LACTIC ACID) CONTAINING CARBON NANOTUBES AND IONIC LIQUID**

Amanda Olinek<sup>1</sup>, Matheus Campos Hemkemaier<sup>1</sup>, Claudia Merlini<sup>1</sup>, Sébastien Livi<sup>2</sup>; <sup>1</sup>Universidade Federal de Santa Catarina, <sup>2</sup>Université de Lyon

**PO1.03.44 FORMULATION OF HIGH THERMAL PERFORMANCE XLPE NANOCOMPOSITE**

Laura Valacio Carvalho<sup>1</sup>, André Balogh de Carvalho<sup>1</sup>, Rafael Barbosa<sup>1</sup>, Lidiane Cristina Costa<sup>1</sup>; <sup>1</sup>Univerdade Federal de São Carlos

**PO1.03.45 "DEVELOPMENT OF SILOXANE-PMMA AND SILOXANE-PEO-PMMA HYBRID MATERIALS FOR FUTURE APPLICATIONS OF PROLONGED RELEASE OF PENICILLIN G"**

Andressa Rebecca Brito de Andrade<sup>1</sup>, Thaís Drolhe Comparoni<sup>1</sup>, Alexandre Carneiro Silvino<sup>1</sup>, Katty Gyselle de Holanda e Silva<sup>1</sup>, Viviane de Oliveira Freitas Lione<sup>1</sup>, Karim Dahmouche<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO1.03.46 STUDY OF THE INFLUENCE OF THE SHAPE OF CARBON BLACK NANOPARTICLE AGGREGATES ON THE PROPERTIES OF NANOCOMPOSITES WITH AND WITHOUT BLOCK COPOLYMER**

Anelise Fraga de Jesus<sup>1</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina

**PO1.03.49 INFLUENCE OF NITROGEN DOPING ON THE CONDUCTIVE PHASE IN CONDUCTIVE HYDROGELS**

Gabrieli Estefani Andriotti<sup>1</sup>, Jean Valdir Uchôa Teixeira<sup>1</sup>, Bruno Mello de Freitas<sup>1</sup>, Paulo Noronha Lisboa-Filho<sup>1</sup>; <sup>1</sup>Universidade Estadual Paulista

**PO1.03.50 STUDY OF THE INCORPORATION OF CARBON NANOTUBES ON WATER-BASED EPOXY INK**

Dafne Aparecida do Nascimento<sup>1</sup>, Victor Henrique Queiroz Silva<sup>1</sup>, Wagner Mauricio Pachekoski<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO1.03.54 STUDY OF ELECTROSPUN MATS OF POLY(ACID LACTIC) WITH GRAPHENE NANOPATELETS AND CHOLINE BITARTRATE FOR USE IN NERVE TISSUE ENGINEERING**

Eric Tatsuo Yida<sup>1</sup>, Matheus Campos Hemkemaier<sup>1</sup>, Sébastien Livi<sup>2</sup>, Claudia Merlini<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina, <sup>2</sup>Université de Lyon

**PO1.03.55 SYNERGISTIC EFFECT OF ADDING GRAPHENE NANOPATES AND CARBON NANOTUBES IN PLA/PHBV BLENDS**

Erick Gabriel Ribeiro dos Anjos<sup>1</sup>, Guilherme Ferreira de Melo Morgado<sup>1</sup>, Tayra Rodrigues Brazil<sup>1</sup>, Francys Kley Vieira Moreira<sup>2</sup>, Juliano Marini<sup>2</sup>, Fabio Roberto Passador<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo, <sup>2</sup>Univerdade Federal de São Carlos

**PO1.03.56 REPLACEMENT OF ETHYLENE VINYL ACETATE (EVA) LAYER BY POLYDIMETHYLSILOXANE COMPOSITES (PDMS) WITH GRAPHENE NANOSTRUCTURES IN PHOTOVOLTAIC MODULES**

José Manuel Mejía Armijo<sup>1</sup>, Muriel Ramos de Oliveira<sup>1</sup>, Pedro Leonardo Silva<sup>1</sup>, Deuber Lincon da Silva Agostini<sup>1</sup>, Clarissa de Almeida Olivati<sup>1</sup>, Leonardo Lataro Paim<sup>1</sup>, Renivaldo José dos Santos<sup>1</sup>, Flávio Camargo Cabrera<sup>1</sup>; <sup>1</sup>Universidade Estadual Paulista

**PO1.03.57 HYBRID MULTIFUNCTIONAL NANOCOMPOSITES BASED ON POLYAMIDE 10.10 AND TWO-DIMENSIONAL MATERIALS**

Guilhermino José Macedo Fechine<sup>1</sup>, Nicole Raymond Demarquette<sup>2</sup>, Eric david<sup>2</sup>, Helio Ribeiro<sup>1</sup>, Emna Helal<sup>2</sup>, Gabriel Matheus Pinto<sup>1</sup>; <sup>1</sup>Universidade Presbiteriana Mackenzie, <sup>2</sup>Ecole de Technologie Supérieure

**PO1.03.62 SYNERGISTIC COMBINATION OF NATURAL RUBBER LATEX AND LIGNIN FOR SUSTAINABLE WATER-BASED ADHESIVES**

Juliana Martins da Silva<sup>1,2</sup>, Pedro Ivo Cunha Claro<sup>1</sup>, Marcos Vinicius Lorevice<sup>1</sup>, Rubia Figueredo Gouveia<sup>1,2</sup>; <sup>1</sup>Brazilian Center for Research in Energy and Materials, <sup>2</sup>Federal University of ABC

**PO1.03.63 SYNTHESIS OF POLYANILINE IN BACTERIAL CELLULOSE OBTAINED FROM KOMBUCHA TEA FERMENTATION**

Karoline Gwiazdecki<sup>1</sup>, Ermelinda Junckes<sup>1</sup>, Marcia Margarete Meier<sup>2</sup>, Andréa L.D.S Schneider<sup>3</sup>, Carla Dalmolin<sup>2</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina, <sup>2</sup>Fundação Universidade do Estado de Santa Catarina, <sup>3</sup>Universidade da Região de Joinville

**PO1.03.64 EVALUATION OF ACID CONCENTRATION ON OBTAINING NANOCRYSTALS CELLULOSE AND SURFACE MODIFICATION BY SILANE**

Katiusca Wessler Miranda<sup>1,2</sup>, Janaina Lisi Leite Howarth<sup>2</sup>, Sergio Henrique Pezzin<sup>3</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina, <sup>2</sup>Nanobiocell Nanotecnologia, <sup>3</sup>Fundação Universidade do Estado de Santa Catarina

**PO1.03.65 EVALUATION OF THE INCORPORATION OF BORON NITRIDE MICROPARTICLES AND NANOPARTICLES IN POLY(VINYL CHLORIDE) COMPOUND**

Lana Taíse Peschel<sup>1,2</sup>, Wagner Mauricio Pachekoski<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina, <sup>2</sup>Krona Tubos e Conexões

**PO1.03.66 PREPARATION AND CHARACTERIZATION OF NANOPARTICLES FOR POTENTIAL APPLICATION IN TREATMENT OF CONTAMINATED WATER**

Luiz Henrique Tibes Dubiginski<sup>1</sup>; <sup>1</sup>Pontifícia Universidade Católica do Paraná

**PO1.03.68 PREPARATION AND CHARACTERIZATION OF NANOSTRUCTURED HYDROGELS BASED ON CALCIUM ALGINATE AND MONTMORILLONITE.**

Maria Andreia Gomes da Silva Araujo Sardinha<sup>1</sup>, Marcia Parente Melo da Costa<sup>1</sup>, Ivana Lourenço de Mello Ferreira<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO1.03.69 COTTON ANTIBACTERIAL ACTIVITY EVALUATION AFTER PLASMA FUNCTIONALIZED TiO<sub>2</sub> AND ZnO DEPOSITION**

Maria Elisa Philippsen Missner<sup>1</sup>, Luis César Fontana<sup>2</sup>, Teresa Tromm Steffen<sup>2,3</sup>, Daniela Becker<sup>2</sup>, Daiani Cristina Savi<sup>4</sup>; <sup>1</sup>Universidade Federal de Santa Catarina, <sup>2</sup>Fundação Universidade do Estado de Santa Catarina, <sup>3</sup>Plasmatex, <sup>4</sup>Centro Universitário – Católica de Santa Catarina

**PO1.03.71 EVALUATION OF POLYDIMETHYLSILOXANE (PDMS) WITH ZINC OXIDE NANOSTRUCTURES AS AN ENCAPSULANT IN PHOTOVOLTAIC MODULES**

Muriel Ramos de Oliveira<sup>1</sup>, Pedro Leonardo Silva<sup>1</sup>, Deuber Lincon da Silva Agostini<sup>1</sup>, Clarissa de Almeida Olivati<sup>1</sup>, Leonardo Lataro Paim<sup>1</sup>, Renivaldo José dos Santos<sup>1</sup>, Flávio Camargo Cabrera<sup>1</sup>; <sup>1</sup>Universidade Estadual Paulista

**PO1.03.72 POLYMER NANOCOMPOSITES BASED ON ACRYLONITRILE BUTADIENE STYRENE (ABS) COPOLYMER, GRAPHENE NANOPATELETS AND HEXAGONAL BORON NITRIDE**

Natália Ferreira Braga<sup>1</sup>, Guilhermino José Macedo Fechine<sup>1</sup>; <sup>1</sup>Universidade Presbiteriana Mackenzie

**PO1.03.73 RECOVERY OF THE MECHANICAL PROPERTIES OF POST-CONSUMER ABS COPOLYMER BY INCORPORATION OF GRAPHENE OXIDE (GO) AND GRAPHENE**

Lucas Pacanaro de Lima<sup>1</sup>, Natália Ferreira Braga<sup>1</sup>, Guilhermino José Macedo Fechine<sup>1</sup>; <sup>1</sup>Universidade Presbiteriana Mackenzie

**PO1.03.74 DEVELOPMENT OF ELECTROSPUN MEMBRANES OF PVDF/SILICA FUNCTIONALIZED WITH IONIC LIQUID FOR EFFLUENT TREATMENT**

Nathalia Oliveira Almeida dos Anjos<sup>1</sup>, Bluma Guenther Soares<sup>1</sup>, Ruan Roberto Henriques<sup>1</sup>, Jéssica Pereira Soares da Silva<sup>1</sup>, Julia Gracielle Gomes de Souza<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO1.03.75 EFFECT OF CURING ON THE GLASS TRANSITION TEMPERATURE OF THE EPOXY/GNP SYSTEM**

Lucas Carvalho<sup>1</sup>, Joziel Aparecido da Cruz<sup>1</sup>, Patrik Fernberg<sup>2</sup>, Sandro Campos Amico<sup>1</sup>, Otávio Bianchi<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Lulea University of Technology / Luleå tekniska universitet

**PO1.03.79 SINGLE WALL CARBON NANOTUBES AND ITS INFLUENCE ON PROPERTIES OF POLYMER NANOCOMPOSITES**

Ricardo Ritter de Souza Barnasky<sup>1</sup>, Pietro Rafael Ferreira<sup>1</sup>, Felipe Bertola de Souza<sup>1</sup>, Rafael Rank Storm<sup>1</sup>, Kássia Peçanha Vieira<sup>1</sup>, Claudemir Gracino<sup>2</sup>; <sup>1</sup>Serviço Nacional de Aprendizagem Industrial, <sup>2</sup>Skintech Tecnologia

**PO1.03.80 NANOCOMPOSITES OF MESO-PORPHYRINS DERIVED FROM CARDANOL AND VANILLIN FOR APPLICATION IN ANTICORROSIVE ORGANIC COATINGS.**

Malena Gomes Martins<sup>1</sup>, Lucas Renan Rocha da Silva<sup>1</sup>, Paulo Vitor Macedo da Silva<sup>1</sup>, Rafaelly Nascimento Araújo<sup>1</sup>, Vitória de Paula Santos<sup>1</sup>, Leonardo Mapurunga de Menezes<sup>1</sup>, Claudenilson da Silva Clemente<sup>1</sup>, Diego Lomonaco<sup>1</sup>, Selma Elaine Mazzetto<sup>1</sup>, Sara Jéssica Marciano<sup>1</sup>; <sup>1</sup>Universidade Federal do Ceará

**PO1.03.81 ANALYSIS OF THE MECHANICAL PROPERTIES OF NANO COMPOSITE OF PLA POLYMERIC MATRIX WITH VEGETABLE FIBER AND NANO PARTICLE SUBMITTED TO 3D PRINTING**

Thais da Silva Santos<sup>1</sup>, Joziene Silva da Cunha<sup>1</sup>, José Costa de Macêdo Neto<sup>2</sup>; <sup>1</sup>Universidade do Estado do Amazonas, <sup>2</sup>Universidade Estadual de Campinas

**PO1.04.84 THERORICAL PREDICTION OF H-BN AND SI<sub>3</sub>N<sub>4</sub> NANOPARTICLES FINAL LOCALIZATION IN PP/EOC POLYMER BLEND NANOCOMPOSITES AND ITS IMPACT IN THERMAL CONDUCTIVITY**

André Balogh de Carvalho<sup>1</sup>, Rafael Barbosa<sup>1</sup>, Lidiane Cristina Costa<sup>2,3</sup>; <sup>1</sup>Universidade Federal de São Carlos, <sup>2</sup>Univerdade Federal de São Carlos, <sup>3</sup>Centro de Caracterização e Desenvolvimento de Materiais

**PO1.04.85 EFFECT OF NON-HALOGENATED FLAME RETARDANT ON ABS/PC BLEND PROPERTIES**

Baltus Cornelius Bonse<sup>1</sup>, Cindy Saraiva Tavares Barduchi<sup>1</sup>; <sup>1</sup>Centro Universitário da Fundação Educacional Inaciana Pe Sabóia de Medeiros

**PO1.04.87 STUDY OF THE PLASTICIZER EFFECT OF CASTOR OIL DERIVATIVES IN THE PREPARATION OF FLEXIBLE PHBV FILMS**

Caio Bruno Livero<sup>1</sup>, Sonia Faria Zawadzki<sup>1</sup>, Juliete Silva Neves<sup>1</sup>, Stephannye Batista Ribeiro<sup>1</sup>, Duanne Maciel Scremin<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná

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Clécia Santos Borges<sup>1</sup>, Maria Eduarda Araújo Camargo Alves<sup>1</sup>, Reinaldo Silva Jovita Júnior<sup>1</sup>, Erica Cristina Almeida<sup>1</sup>, Werviles Douglas Brito Santos<sup>1</sup>, Vaneide Gomes<sup>1</sup>, Celso Carlino Maria Fornari Junior<sup>1</sup>; <sup>1</sup>Universidade Estadual de Santa Cruz

**PO1.04.90 COMPOSITE AEROGELS CONTAINING NANOCELLULOSE: NANOCELLULOSE ON CROSSLINKING AND CADMIUM REMOVAL**

Paulo Henrique Camani<sup>1</sup>, Carolina Paschoalini<sup>1</sup>, Karina Mayumi Sato<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO1.04.91 THERMO-OXIDATIVE DEGRADATION ANALYSIS OF A POLYMER BLEND COMPOSED OF HDPE, EVOH AND PA-G-MA APPLIED IN THE AUTOMOTIVE**

Jardel Jackson de Oliveira Silva<sup>1,2</sup>, Grazielle Rozendo de Cerqueira<sup>1</sup>, Djalma Alves de Oliveira<sup>1</sup>, Carolina Lipparelli Morelli<sup>1</sup>, Kleber Gonçalves Bezerra Alves<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco, <sup>2</sup>STELLANTIS SOU AMERICA

**PO1.04.92 DEVELOPMENT OF CORN STARCH HYDROGELS FOR SORPTION OF POTENTIALLY TOXIC METALS**

Eduarda Lucas da Silva<sup>1</sup>, Livia Toaldo D'Alcantara<sup>1</sup>, Talles Barcelos da Costa<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO1.04.93 EVALUATION OF THE EFFECTS OF USING COMPATIBILIZERS IN HDPE COMPOSITES WITH TREATED COCONUT FIBER**

Elaine Meireles Senra<sup>1</sup>, Andressa de Carvalho Amorim<sup>2</sup>, Renan Henriques Gonçalves de Almeida<sup>1</sup>, Ana Lúcia Nazareth da Silva<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio de Janeiro

**PO1.04.96 PHOTOCATALYST IMMOBILIZATION ON ELECTROSPUN FIBERS FOR THE DEGRADATION OF THE DRUG PARACETAMOL**

Fabiana Silva Lima<sup>1</sup>, Alessandra Ruyz Medeiros<sup>1</sup>, Douglas Cardoso Dragunski<sup>2</sup>, Josiane Caetano Dragunski<sup>2</sup>; <sup>1</sup>Universidade Estadual de Maringá, <sup>2</sup>Universidade Estadual do Oeste do Paraná

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Jurandi Tiago Soares Muniz<sup>1</sup>, Felipe Pedro da Costa Gomes<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

**PO1.04.99 EFFECT OF BACURI SEED (BS) NATURAL FILLER ON PBAT**

Gabriela Moura dos Santos<sup>1</sup>, Cléverson Fernandes Senra Gabriel<sup>1</sup>, Marcia Gomes de Oliveira<sup>1</sup>; <sup>1</sup>Instituto Nacional de Tecnologia

**PO1.04.100 PBAT BIOCOMPOSITES WITH BRAZIL NUT SHELL FIBERS (CP)**

Gabriela Moura dos Santos<sup>1</sup>, Paula Aurora Moreira Alves<sup>1</sup>, Cléverson Fernandes Senra Gabriel<sup>1</sup>, Marcia Gomes de Oliveira<sup>1</sup>; <sup>1</sup>Instituto Nacional de Tecnologia

**PO1.04.101 NANOCELLULOSE AEROGELS FROM EUCALYPTUS WASTES: MECHANICAL PERFORMANCE AND CADMIUM REMOVAL**

Gabriel Diego Lemes<sup>1</sup>, Rafaela Reis Ferreira<sup>1</sup>, Paulo Henrique Camani<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO1.04.102 INACTIVATION OF SARS-COV-2 IN POLYELECTROLYTE FILM BASED ON PECTIN/POLY(DIALLYLDIMETHYLAMMONIUM CHLORIDE)**

Guilherme Ribeiro Carvalho<sup>1</sup>, Liliane Maria Ferrareso Lona<sup>2,1</sup>; <sup>1</sup>Faculdade de Engenharia Química da Unicamp, <sup>2</sup>Universidade Estadual de Campinas

**PO1.04.104 TENSILE PROPERTIES OF RECYCLED ABS/RECYCLED CARBON FIBER FABRIC/JUTE FABRIC COMPOSITES**

Meire Noriko Hosokawa<sup>1</sup>, Maria Natália Castanho<sup>1</sup>, Jane Maria Faulstich de Paiva<sup>1</sup>; <sup>1</sup>Universidade Federal de São Carlos - Campus Sorocaba

**PO1.04.105 IMPREGNATION OF POLYCARBONATE/POLY(L-LACTIC ACID) BLENDS WITH CLOVE EXTRACT ASSISTED BY SUPERCRITICAL CO<sub>2</sub>**

Jorge André Pereira Monteiro<sup>1</sup>, Mathilde Julienne Gisèle Champeau<sup>1</sup>, Suel Eric Vidotti<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO1.04.106 LUFFA CYLINDRICA GRAFTED WITH POLYETHYLENEIMINE: A POTENTIAL ADSORBENT TO TREAT POST-COVID-19 WASTEWATER**

Juliê Silveira da Costa<sup>1</sup>, Débora Rosane Soares dos Santos<sup>1</sup>, André Ricardo Fajardo<sup>1</sup>; <sup>1</sup>Universidade Federal de Pelotas

**PO1.04.107 EVALUATION OF BENDING PROPERTIES OF POLYESTER COMPOSITES AND PLANT FIBERS COATED WITH INVERTED SUCROSE**

Julio Santos Souza<sup>1</sup>, Celso Carlino Maria Fornari Junior<sup>1</sup>; <sup>1</sup>Universidade Estadual de Santa Cruz

**PO1.04.108 DEVELOPMENT OF SYNTHETIC COMPOSITE WITH RECYCLED HIGH DENSITY POLYETHYLENE (HDPE) MATRIX AND FIBERGLASS REINFORCEMENT**

Kelson de Sousa Gonçalves Vilhena<sup>1</sup>, Milenna Adria Banhos Rodrigues<sup>1</sup>, Thais da Silva Santos<sup>1</sup>; <sup>1</sup>Universidade do Estado do Amazonas

**PO1.04.110 INFLUENCE OF THE ADDITION OF PEG-B-PPG-B-PEG AND PPG-B-PEG-B-PPG TRIBLOCK COPOLYMERS IN THERMOSETTING SYSTEMS**

Lohana Vieira Bataglini<sup>1</sup>, Rafaela Fatima Cossul<sup>1</sup>, Maria Luiza Paganini Maia<sup>1</sup>, Luana Bettanin<sup>1</sup>, Marlene Bampi<sup>1</sup>, Marcia Bär Schuster<sup>1</sup>, Bruna Louise Silva<sup>1</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina

**PO1.04.111 DEVELOPMENT OF FILTERING SYSTEMS BASED ON POLYSACCHARIDES BY ELECTROSPINNING**

Luana Priscila da Souza<sup>1</sup>, Beatriz Luci Fernandes<sup>1</sup>, Clayton Fernandes de Souza<sup>1</sup>; <sup>1</sup>Pontifícia Universidade Católica do Paraná

**PO1.04.113 PROCESSING PARAMETERS AS POTENTIAL VARIABLES TO TPS/PVOH BLENDS SENSITIVITY TO WATER**

Marcos Vinícius Batista Nicolino<sup>1</sup>, Lidiane Cristina Costa<sup>2,3</sup>; <sup>1</sup>Universidade Federal de São Carlos, <sup>2</sup>Univerdade Federal de São Carlos, <sup>3</sup>Centro de Caracterização e Desenvolvimento de Materiais

**PO1.04.114 THE EFFECTS OF AGING ON GLASS FIBER-EPOXY COMPOSITES WITH IMPACT DAMAGE.**

Maria Aparecida Pereira Damasceno<sup>1</sup>, João Felipe Barros Pontes<sup>1</sup>, Ana Paula Cysne Barbosa<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte

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Milenna Adria Banhos Rodrigues<sup>1</sup>, Kelson de Sousa Gonçalves Vilhena<sup>1</sup>; <sup>1</sup>Universidade do Estado do Amazonas

**PO1.04.118 SORPTION KINETICS OF CATIONIC DYES IN PECTIN-CLAY MINERAL COMPOSITE HYDROGELS**

Wilson Bokorny Fernandes Filho<sup>1</sup>, Mirlene Pereira Vitorino<sup>1</sup>, Karine Priscila Naidek<sup>1</sup>, Alexandre Tadeu Paulino<sup>1</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina

**PO1.04.122 INFLUENCE OF SODIUM BENTONITE CLAY CONCENTRATION ON THE PROPERTIES OF BIOCOMPOSITES BASED ON BABASSU COCONUT MESOCARP STARCH AND ALGINATE**

Pablo Daniel Sena Silva<sup>1</sup>, Casi Santos dos Santos<sup>1</sup>, Louryval Coelho Paixão<sup>1</sup>, Allan Kardec Duailibe Barros Filho<sup>1</sup>, Audirene Amorim Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Maranhão

**PO1.04.124 EVALUATION OF THE EFFECT OF DIFFERENT LEVELS OF CITRIC ACID ON THE PHYSICOCHEMICAL PROPERTIES OF CASSAVA STARCH/POLY(BUTYLENE SUCCINATE) BLENDS**

Raul Franklin Andrade Santos<sup>1</sup>, Gustavo Adolfo Duarte Urueña<sup>1</sup>, Patrícia Santiago de Oliveira Patrício<sup>2</sup>, Alessandra de Almeida Lucas<sup>1</sup>; <sup>1</sup>Universidade Federal de São Carlos, <sup>2</sup>Centro Federal de Educação Tecnológica de Minas Gerais

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Ian dos Santos Costa<sup>1</sup>, Ana Lúcia Nazareth da Silva<sup>1</sup>, Renan Henriques Gonçalves de Almeida<sup>1</sup>, Bianca da Rocha Mandarino<sup>1</sup>, Laiza Marinho Racca<sup>2</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Cetiqt

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Maria Gabriela de Freitas Rodrigues<sup>1</sup>, Adalberto Gomes de Miranda<sup>1</sup>, Renato Moreira Teixeira Junior<sup>1</sup>, Renata de Oliveira Teixeira<sup>2</sup>, Antônio Estanislau Sanches<sup>1</sup>, João D'Anuzio Lima de Azevedo<sup>1</sup>; <sup>1</sup>Universidade do Estado do Amazonas, <sup>2</sup>Universidade Federal do Amazonas

**PO1.04.128 DEVELOPMENT OF HIGH-DENSITY POLYETHYLENE COMPOSITES WITH MACAIBA BARK**

Renê Anisio da Paz<sup>1</sup>, Stephanie Kelly Ferreira Silva<sup>1</sup>, Vanessa da Nobrega Medeiros<sup>1</sup>, Danilo Siqueira Siqueira<sup>1</sup>, Pamela Thainara Vieira da Silva<sup>1</sup>, Edcleide Maria Araújo<sup>1</sup>; <sup>1</sup>Universidade Federal de Campina Grande

**PO1.04.129 PREPARATION AND CHARACTERIZATION OF POLYETHERIMIDE/CLAY MEMBRANES**

Renê Anisio da Paz<sup>1</sup>, João Pedro Barbosa Gonzaga de Araújo<sup>1</sup>, Vanessa da Nobrega Medeiros<sup>1</sup>, Pamela Thainara Vieira da Silva<sup>1</sup>, Bruna Aline Araujo<sup>1</sup>, Edcleide Maria Araújo<sup>1</sup>; <sup>1</sup>Universidade Federal de Campina Grande

**PO1.04.130 DEVELOPMENT OF CHITOSAN HYDROGELS FOR METAL REMOVAL IN CONTAMINATED WATER**

Rennan Felix da Silva Barbosa<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO1.04.131 INFLUENCE OF THE INCORPORATION OF AGAVE ANGUSTIFOLIA FIBERS VAR. MARGINATA (FAAM) IN THE MECHANICAL AND THERMAL PROPERTIES OF THE COMPOSITE UNSATURATED POLYESTER/FAAM**

Roseméri Barbosa dos Santos da Silva<sup>1</sup>, Michel Picanço Oliveira<sup>1</sup>, Jordão Cabral Moulin<sup>1</sup>, Verônica Scarpini Candido<sup>2</sup>; <sup>1</sup>Universidade Federal do Espírito Santo, <sup>2</sup>Universidade Federal do Pará

**PO1.04.133 THE EFFECTS OF COPPER POWDER ON THE PROPERTIES OF ABS**

Vicente Fróes Moritz<sup>1,2</sup>, Harald Prévost<sup>3</sup>, Declan M. Devine<sup>2</sup>, Carlos Arthur Ferreira<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Technological University of the Shannon, <sup>3</sup>Institut National Polytechnique de Toulouse

**PO1.05.137 NIOBIUM OXIDE (NB2O5) AS A FILLER FOR PLA FILAMENTS: 3D PRINTING IN BIOMEDICAL APPLICATIONS**

Anderson Antônio Horta<sup>1</sup>, Caroline Salvan Pagnan<sup>1</sup>, Eliane Ayres<sup>1</sup>; <sup>1</sup>Universidade do Estado de Minas Gerais

**PO1.05.138 ELECTROSTATIC CHARGED FUNCTIONAL 3D PRINTED POLYMERS**

Ezequiel Lorenzett<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Maria

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Cristiane Kalinke<sup>1</sup>, Paulo Roberto de Oliveira<sup>2</sup>, Craig E. Banks<sup>3</sup>, Bruno Campos Janegitz<sup>2</sup>, Juliano Alves Bonacin<sup>1</sup>; <sup>1</sup>Universidade Estadual de Campinas, <sup>2</sup>Universidade Federal de São Carlos - Campus Araras, <sup>3</sup>Manchester Metropolitan University

**PO1.06.145 EVALUATION OF ANTIOXIDANT AND ANTIOZONANT PROTECTIVE AGENTS ON THE MECHANICAL PROPERTIES OF EPDM**

Claudio Faria Maffra<sup>1</sup>, Edson Luiz Francisquetti<sup>1</sup>, Daiane Romanzini<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

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Alessandra Bitobrovec<sup>1</sup>, Carlos Alberto Ferreira dos Santos<sup>1</sup>, Dayane Reina<sup>1</sup>, Bruna de Fátima Pereira Schmite<sup>1</sup>, Adriano Gonçalves Viana<sup>1</sup>, Ernandes Taveira Tenório Neto<sup>1</sup>, Vanessa Egéa dos Anjos<sup>1</sup>; <sup>1</sup>Universidade Estadual de Ponta Grossa

**PO1.07.147 DEVELOPMENT AND CHARACTERIZATION OF STARCH-BASED COMPOSITE FILMS CONTAINING BREWERS' SPENT GRAIN EXTRACT**

Ana Beatriz Klosowski<sup>1</sup>, Patrícia Mazureki Campos<sup>1</sup>, Juliana Bonametti Olivato<sup>1</sup>; <sup>1</sup>Universidade Estadual de Ponta Grossa

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Ana Paula Pereira de Oliveira<sup>1</sup>, Isabela de Andrade Arruda Fernandes<sup>1</sup>, Tobias Cabral Negrão<sup>1</sup>, Juliana Regina Kloss<sup>1</sup>, Lucila Adriani de Almeida Coral<sup>1</sup>; <sup>1</sup>Universidade Tecnológica Federal do Paraná

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Aline Ferreira Knih<sup>1</sup>, Larissa Klen Aragão<sup>1</sup>, Miguel Granato<sup>1</sup>, Andrea Cristiane Krause Bierhalz<sup>1</sup>, Rita de Cássia Siqueira Curto Valle<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO1.07.150 THE USE OF NATURAL POLYMER AS STRATEGIES TO IMPROVE THE PROPERTIES OF ZNO**

Benjamim Sipaúba Gonçalves Rubim<sup>1</sup>, Idglan Sá de Lima<sup>1</sup>, Edson Cavalcanti da Silva Filho<sup>1</sup>, Marcelo Barbosa Furtini<sup>1</sup>, Josy Anteveli Osajima<sup>1</sup>; <sup>1</sup>Universidade Federal do Piauí

**PO1.07.151 ANTIOXIDANT ACTIVITY AND THERMAL DEGRADATION OF BIOFILMS INCORPORATED WITH GRAPE RESIDUES**

Bruna Passaia Zanfonato<sup>1</sup>, Rafael Schlaucher Krass Zacarão<sup>1</sup>, Nicole Marque da Costa<sup>1</sup>, Andréia Zilio Dinon<sup>1</sup>, Marcia Bär Schuster<sup>1</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina

**PO1.07.153 USE OF ACRYLONITRILE BUTADIENE STYRENE (ABS) WASTE FROM ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) IN OBTAINING FILAMENTS FOR 3D PRINTING**

Douglas Alexandre Simon<sup>1</sup>, Eveline Bischoff<sup>1</sup>, Jonas Mantovani<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

**PO1.07.154 GREEN SYNTHESIS OF TITANIUM DIOXIDE NANOPARTICLES FOR APPLICATION IN PHOTOVOLTAIC DEVICES**

Felipe Sievert da Costa Portes<sup>1</sup>, Adhimar Flávio Oliveira<sup>1</sup>, Maria Elena Leyva<sup>1</sup>; <sup>1</sup>Universidade Federal de Itajubá

**PO1.07.155 ENHANCING SUSTAINABLE PACKAGING POTENCIAL: INVESTIGATION OF HIGH CALCIUM CARBONATE CONTENT VIA INJECTION MOLDING AS AN ALTERNATIVE TO FOSSIL-BASED PLASTICS**

Franciele Saorin<sup>1</sup>, Bruna Leticia Jatzek<sup>1</sup>, Marcia Priscila Porto dos Santos<sup>1</sup>, María Angélica Restrepo<sup>2</sup>, Guilherme Silva<sup>3</sup>, Rafael Justus<sup>3</sup>; <sup>1</sup>Cencoderma Institute, <sup>2</sup>Okeanos Group LLC, <sup>3</sup>Aptar do Brasil Embalagens Ltda

**PO1.07.158 A NEW BIOPOLYURETHANE COATING BASED ON BIO OIL**

Ítalo Marques da Costa<sup>1</sup>, Vanya Pasa<sup>1</sup>, Renata Costa Silva Araújo<sup>1</sup>, Pedro Henrique Oliveira Barbosa Nogueira<sup>1</sup>; <sup>1</sup>Universidade Federal de Minas Gerais

**PO1.07.159 EVALUATION OF COMPOSTING AND VERMICOMPOSTING IN THE DEGRADATION OF PLA/TPS BLEND FILMS**

Jonas Ludwig de Bitencourt<sup>1,2,3</sup>, Ruth Marlene Campomanes Santana<sup>3</sup>, Edson Luiz Francisquetti<sup>2</sup>, Mara Zeni Andrade<sup>2</sup>, Laura de Andrade Souza<sup>2</sup>; <sup>1</sup>Bento, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul, <sup>3</sup>Universidade Federal do Rio Grande do Sul

**PO1.07.160 EVALUATION OF COMPOSTING AND VERMICOMPOSTING IN THE DEGRADATION OF HDPE FILMS**

Jonas Ludwig de Bitencourt<sup>1,2,3</sup>, Ruth Marlene Campomanes Santana<sup>3</sup>, Edson Luiz Francisquetti<sup>2</sup>, Mara Zeni Andrade<sup>2</sup>, Laura de Andrade Souza<sup>2</sup>; <sup>1</sup>Bento, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul, <sup>3</sup>Universidade Federal do Rio Grande do Sul

**PO1.07.161 INFLUENCE OF DRYING CONDITIONS ON THE MELT FLOW INDEX OF POLYBUTYLENE SUCCINATE (PBS) AFTER LONG TIME STORAGE**

Ilana Oliveira Almeida<sup>1</sup>, Lucas Nao Horiuchi<sup>1</sup>, Rosana Lopes Fialho<sup>1</sup>, Joyce Batista Azevedo<sup>1</sup>; <sup>1</sup>Universidade Federal da Bahia

**PO1.07.163 BIODEGRADABLE ACTIVE MATERIALS BASED ON STARCH AND BLACKBERRY DRY RESIDUE**

Amanda Chezini<sup>1</sup>, Ana Beatriz Klosowski<sup>1</sup>, Giovanni Almeida Camargo<sup>1</sup>, Juliana Bonametti Olivato<sup>1</sup>; <sup>1</sup>Universidade Estadual de Ponta Grossa

**PO1.07.164 EXTRACTION, PURIFICATION AND APPLICATION OF BREWER'S SPENT GRAIN IN STARCH-BASED COMPOSITES**

Georgia Woznika Ramos<sup>1</sup>, Ana Beatriz Klosowski<sup>1</sup>, Aline Carvalho Lopes<sup>1</sup>, Giovani Almeida Camargo<sup>1</sup>, Juliana Bonametti Olivato<sup>1</sup>; <sup>1</sup>Universidade Estadual de Ponta Grossa

**PO1.07.165 MICROSPHERES OF NATURAL POLYMER PROMOTE LESS IMPACT ON THE ENVIRONMENT**

Késia Karina de Oliveira Souto Silva<sup>1</sup>, Márcio Fernandes de Jesus Júnior<sup>1</sup>, Rafaela Pontes Cunha<sup>1</sup>, Suzanna Rani Cristina Alves de Souza<sup>1</sup>, Rita Kássia Silva<sup>1</sup>, Christiane Siqueira de Azevedo Sá<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte

**PO1.07.167 ADSORPTION STUDY OF PHENATHRENE FROM AQUEOUS SOLUTION BY POLYMERIC RESINS CROSSLINKED WITH DIVINYLBENZENE**

Luciana da Cunha Costa<sup>1</sup>, Rafael de Lima Pinto<sup>1</sup>, Ezaine Cristina Correa Torquato dos Santos<sup>1</sup>, Monica Regina da Costa Marques Calderari<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO1.07.168 THERMAL DEGRADATION AND BIODEGRADABILITY OF POTATO STARCH FILMS WITH YERBA MATE EXTRACT AND MALIC ACID**

Magali Canton Casagrande<sup>1</sup>, Renan Borges da Silva<sup>1</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO1.07.172 EFFLUENT CHEMICAL INDUSTRY WASTEWATER TREATMENT BY MEMBRANE DISTILLATION USING COMMERCIAL MEMBRANES**

Leticia Vieira Aimi<sup>1</sup>, Regilene de Souza Silva<sup>2</sup>, Cintia Marangoni<sup>2</sup>, Noeli Sellin<sup>1</sup>; <sup>1</sup>Universidade da Região de Joinville, <sup>2</sup>Universidade Federal de Santa Catarina

**PO1.07.173 ECO-AUDIT ANALYSIS AND IMPACT OF DIFFERENT END-OF-LIFE FOR PLASTIC BOTTLES**

Patricia Schmid Calvão<sup>1</sup>, Adriana Martinelli Catelli Souza<sup>2</sup>, Paulo Roberto Zebellini de Sá<sup>2</sup>; <sup>1</sup>ESCOLA POLITÉCNICA da USP, <sup>2</sup>Centro Universitário da Fundação Educacional Inaciana Pe Sabóia de Medeiros

**PO1.07.174 CELLULOSE HYDROGELS WITH LIGNIN BIOCHAR FOR REMOVAL OF HEAVY METAL IONS**

Lucas Rossin Gonçalves<sup>1</sup>, Rafaela Reis Ferreira<sup>1</sup>, Alana Gabrieli Souza<sup>1</sup>, Talles Barcelos da Costa<sup>1</sup>, Rennan Felix da Silva Barbosa<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO1.07.175 METAL IONS REMOVAL EFFICIENCY USING GREEN CELLULOSE HYDROGEL ADSORBENT**

Rafaela Reis Ferreira<sup>1</sup>, Carlos Henrique de Barros Franzin<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO1.07.176 STUDY OF BIODEGRADATION OF A POLYELECTROLYTE COMPLEX: SPECTROSCOPIC AND MORPHOLOGICAL ASPECTS**

Rafael Fernandes Pinto da Rocha<sup>1</sup>, Marcia Parente Melo da Costa<sup>1</sup>, Antonio Carlos Augusto da Costa<sup>1</sup>, Ivana Lourenço de Mello Ferreira<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO1.07.177 SYTHESIS AND PROPERTIES OF POLYURETHANE COATINGS BASED ON BIOPOLYOLS: LIQUEFIED MACAÚBA ENDOCARP MIXED WITH CNSL**

Lucius Stieniessen<sup>1</sup>, Pedro Henrique Oliveira Barbosa Nogueira<sup>2</sup>, Renata Costa Silva Araújo<sup>2</sup>; <sup>1</sup>Avans University of Professional Education / Avans Hogeschool, <sup>2</sup>Universidade Federal de Minas Gerais

**PO1.07.178 BIOPOLYMER-BASED TiO<sub>2</sub> FOR ENVIRONMENTAL REMEDIATION PROCESSES**

Rodrigo Prado Feitosa<sup>1</sup>, Joziel Alves de Oliveira<sup>1</sup>, Francisca Pereira de Araújo<sup>2</sup>, Alan Ícaro Sousa Morais<sup>1</sup>, Luzia Maria Castro Honório<sup>3</sup>, Idglan Sá de Lima<sup>1</sup>, Marcelo Barbosa Furtini<sup>1</sup>, Edson Cavalcanti da Silva Filho<sup>1</sup>, Josy Antevelli Osajima<sup>1</sup>; <sup>1</sup>Universidade Federal do Piauí, <sup>2</sup>Universidade Federal Rural de Pernambuco, <sup>3</sup>Universidade Federal da Paraíba

**PO1.07.179 RECYCLING MDF WASTE AS A NEW COMPOSITE MATERIAL AS AN ALTERNATIVE FOR INDUSTRY**

Ruan Deivissom Bufete Liberato<sup>1</sup>; <sup>1</sup>Universidade Estadual de Maringá

**PO1.07.180 REMOVAL OF POTENTIALLY TOXIC METALS BY HYDROGELS CONTAINING MICROCELLULOSE WASTE FROM EUCALYPTUS SAWDUST**

Talles Barcelos da Costa<sup>1</sup>, Rafaela Reis Ferreira<sup>1</sup>, Paulo Henrique Camani<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO1.07.181 THERMAL DECOMPOSITION OF DIFFERENT KRAFT LIGNINS THROUGH THERMOGRAVIMETRIC ANALYSIS**

Thaiane Andrade Cruz<sup>1</sup>, Jaqueline de Oliveira Brotto<sup>1</sup>, Mariana Costa Pinto<sup>1</sup>, Ricardo Antonio Francisco Machado<sup>1</sup>, Arioaldo Bolzan<sup>1</sup>, Regina de Fátima Peralta Muniz Moreira<sup>1</sup>, Bruno Francisco Oechsler<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO1.07.182 DEVELOPMENT OF BIODEGRADABLE FILM OF THERMOPLASTIC STARCH AND YERBA MATE WASTE**

Thaís Fátima Rodrigues<sup>1</sup>, Jenifer Panizzon<sup>1</sup>, Isabela Sant'Anna Mendes<sup>1</sup>, Vanusca Dalosto Jahno<sup>1</sup>; <sup>1</sup>Universidade Feevale

**PO1.07.184 LIPASE NS-40116 INCORPORATED IN BACTERIAL CELLULOSE MODIFIED WITH ZEIN**

Victoria Fonseca Silveira<sup>1</sup>, Victoria Mendes da Silva<sup>1</sup>, Sandro Rogério Kumineck Junior<sup>1</sup>, Michele Cristina Formolo Garcia<sup>1</sup>, Ana Paula Testa Pezzin<sup>1</sup>, Therezinha Maria Novais de Oliveira<sup>1</sup>, Andrea Lima dos Santos Schneider<sup>1</sup>; <sup>1</sup>Universidade da Região de Joinville

**PO1.07.185 INFLUENCE OF FEEDSTOCK COMPOSITION ON CHEMICAL RECYCLING OF PLASTIC WASTES VIA PYROLYSIS**

Yasmin Fialho Siqueira<sup>1</sup>, Débora Micheline Vaz de Miranda<sup>1</sup>, Larissa Leite de Almeida Carvalho<sup>1</sup>, Natasha Kelber Sitton<sup>1</sup>, Regina Funck Nonemacher<sup>2</sup>, Ana Paula de Azeredo<sup>2</sup>, Raquel Santos Mauler<sup>3</sup>, Luiz Eduardo Pizarro Borges<sup>4</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Braskem S/A, <sup>3</sup>Universidade Federal do Rio Grande do Sul, <sup>4</sup>Instituto Militar de Engenharia

**PO1.08.188 EVALUATION OF THE ANTIBACTERIAL ACTIVITY OF CHLORHEXIDINE ASSOCIATED WITH CASSAVA GUM HYDROGEL**

Idglan Sá de Lima<sup>1</sup>, Albert Santos Silva<sup>1</sup>, Ariane Maria da Silva Santos Nascimento<sup>1</sup>, Luis Humberto de Oliveira<sup>1</sup>, Alan Ícaro Sousa Morais<sup>1</sup>, Francisco Eroni Paz dos Santos<sup>1</sup>, Josy Antevelli Osajima<sup>1</sup>, Edvani Curti Muniz<sup>1</sup>, Edson Cavalcanti da Silva Filho<sup>1</sup>; <sup>1</sup>Universidade Federal do Piauí

**PO1.08.189 DEVELOPMENT OF BIOPOLYMERIC SYSTEMS FOR ENCAPSULATION OF BARBATIMÃO EXTRACT**

Jose Gregorio Fontainez Garrido<sup>1</sup>, Fabiana Perrechil Bonsanto<sup>1</sup>, Mariana Agostini de Moraes<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO1.08.190 ENCAPSULATION OF INDOCYANINE GREEN PHOTSENSITIZING AGENT IN POLYGLOBALIDE NANOPARTICLES FOR COMBINED CANCER PHOTOTHERAPY**

Julia Lemos de Oliveira<sup>1</sup>, Tamara Agner<sup>1</sup>, Karina Cesca<sup>1</sup>, Claudia Sayer<sup>1</sup>, Ana Paula Serafini Immich Boemo<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO1.08.194 ENCAPSULATION OF PHOTOPROTECTIVE COMPOUNDS INTO STARCH PARTICLES**

Leticia Miranda de Souza<sup>1</sup>, Luciana da Silva Dutra<sup>1</sup>, Martina Costa Cerqueira Pinto<sup>1</sup>, Rafael Coelho de Lima<sup>1</sup>, Marcio Nele<sup>1</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO1.08.198 DEVELOPMENT OF TPS/PVA/NCC FILMS FOR THE RELEASE OF COPPER OXIDE NANOPARTICLES - POTENTIAL APPLICATION AS TRANSDERMAL DRESSINGS**

Amanda de Sousa Martinez de Freitas<sup>1</sup>, Nathan Kevin Carvalho<sup>1</sup>, Marystela Ferreira<sup>2</sup>, Ana Paula Lemes<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo, <sup>2</sup>Universidade Federal de São Carlos - Campus Sorocaba

**PO1.08.200 GREEN TECHNIQUES FOR MODIFYING CASSAVA STARCH TO IMPROVE FEASIBILITY IN PRINTED BONE SCAFFOLDS PRODUCTION**

Samile Bezerra de Aguiar<sup>1</sup>, Bianca Chieregato Maniglia<sup>1</sup>; <sup>1</sup>Universidade de São Paulo

**PO1.08.201 USING BURITI (MAURITIA FLEXUOSA L.) OIL TO OBTAIN POLYURETHANES**

Thátilla Wanessa Vieira de Sousa<sup>1</sup>, Fernando Silva Reis<sup>1</sup>, Ewerton Gomes Vieira<sup>2</sup>, José Milton Elias de Matos<sup>1</sup>; <sup>1</sup>Universidade Federal do Piauí, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Maranhão

**PO1.08.202 CHARACTERIZATION OF PBAT NANOFIBERS WITH ANTIMICROBIAL ESSENTIAL OIL PRODUCED BY SOLUTION BLOW SPINNING**

Carolina Lipparelli Morelli<sup>1</sup>, Larissa Kerollaine Maia Gomes<sup>1</sup>, Ermeson David dos Santos Silva<sup>2</sup>, Grazielle Rozendo de Cerqueira<sup>1</sup>, Michelle Félix de Andrade<sup>1</sup>, Glória Maria Vinhas<sup>1</sup>, Yêda Medeiros Bastos de Almeida<sup>1</sup>, Edvânia Trajano Teófilo<sup>2</sup>; <sup>1</sup>Universidade Federal de Pernambuco, <sup>2</sup>Universidade Federal do Cariri

**PO1.09.203 ANGICO GUM HYDROGEL: INFLUENCE OF POLYSACCHARIDE PURIFICATION ON WATER ABSORPTION AND TOXICITY**

Albert Santos Silva<sup>1</sup>, Idglan Sá de Lima<sup>1</sup>, Ariane Maria da Silva Santos Nascimento<sup>1</sup>, Joyce Araújo Borges<sup>1</sup>, Rodrigo Prado Feitosa<sup>1</sup>, Emerson Alves Costa Moura<sup>1</sup>, Ana Clara de Aquino Evangelista<sup>1</sup>, Edvani Curti Muniz<sup>1</sup>, Josy Antevéli Osajima<sup>1</sup>, Edson Cavalcanti da Silva Filho<sup>1</sup>; <sup>1</sup>Universidade Federal do Piauí

**PO1.09.204 ACTIVE FILMS WITH JAMBOLAN EXTRACT (SYZYGIUM CUMIN) BASED ON ALGINATE/XANTHAN: CHARACTERIZATION AND ANTIOXIDANT ACTION**

Anderson Campos Bezerra<sup>1</sup>; <sup>1</sup>Universidade Federal de Alagoas

**PO1.09.205 BABASSU MESOCARP HYDROGEL FOR MACRONUTRIENT RELEASE**

Ariane Maria da Silva Santos Nascimento<sup>1</sup>, Albert Santos Silva<sup>1</sup>, Joyce Araújo Borges<sup>1</sup>, Idglan Sá de Lima<sup>1</sup>, Érico Rego Dias<sup>1</sup>, Heldeney Rodrigues de Sousa<sup>2</sup>, Edvani Curti Muniz<sup>1</sup>, Josy Antevéli Osajima<sup>1</sup>, Edson Cavalcanti da Silva Filho<sup>1</sup>; <sup>1</sup>Universidade Federal do Piauí, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Piauí

**PO1.09.206 PEBAX®/POLYDOPAMINE BLEND MEMBRANES WITH HIGH CO<sub>2</sub>/N<sub>2</sub> SELECTIVITY.**

Daniel Eiras<sup>1</sup>, Ariele dos Santos Pirola<sup>1</sup>, Paula Sacchelli Pacheco<sup>1</sup>, Sonia Faria Zawadzki<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná

**PO1.09.210 ALGINATE-BASED HYDROGEL FOR ENCAPSULATION OF PLANTGROWTH-PROMOTING BACTERIA**

Eduarda Guerlinguer<sup>1</sup>, Lais Priscila Karas<sup>1</sup>, Helyemari Valentim Althaus<sup>1</sup>, Cristiane Colodel<sup>1</sup>, Nicolcy de Simas<sup>1</sup>, Ernandes Taveira Tenório Neto<sup>1</sup>, Rafael Mazer Etto<sup>1</sup>, Michele Karoline Lima-Tenório<sup>1</sup>, Carolina Weigert Galvão<sup>1</sup>; <sup>1</sup>Universidade Estadual de Ponta Grossa

**PO1.09.212 ETHYL HYDROXYETHYL CELLULOSE (EHEC) FILMS CONTAINING ALFA-TOCOPHEROL: EFFECTS ON STABILITY, RELEASE IN VITRO AND PROPERTIES OF THE FILM**

Greice Michele Zickuhr<sup>1</sup>, Juliana Priscila Dreyer<sup>1</sup>, Leandro Guarezi Nandi<sup>1</sup>, Rafael Fonseca Neves Quadrado<sup>2</sup>, André Ricardo Fajardo<sup>2</sup>, Larissa Nardini Carli<sup>1</sup>, Ismael Casagrande Bellettini<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina, <sup>2</sup>Universidade Federal de Pelotas

**PO1.09.215 SYNTHESIS AND CHARACTERIZATION OF CASHEW GUM (ANACARDIUM OCCIDENTALE L) HYDROGELS CONTAINING MODIFIED PHOSPHATES**

Joyce Araújo Borges<sup>1</sup>, Albert Santos Silva<sup>1</sup>, Ariane Maria da Silva Santos Nascimento<sup>1</sup>, Idglan Sá de Lima<sup>1</sup>, Edvani Curti Muniz<sup>1</sup>, Josy Antevélio Osajima<sup>1</sup>, Edson Cavalcanti da Silva Filho<sup>1</sup>; <sup>1</sup>Universidade Federal do Piauí

**PO1.09.218 CHEMICALLY MODIFIED CELLULOSE NANOFIBRILS AS A MACRONUTRIENT-CARRYING VEHICLE**

Sahmira Bianchi<sup>1</sup>, Roselena Faez<sup>2,1</sup>, Débora França; <sup>1</sup>Universidade Federal de São Carlos - Campus Araras, <sup>2</sup>Universidade de São Paulo

**PO1.09.219 USE OF POLYSULFIDES FROM INVERSE VULCANIZATION AS STRATEGIC MATERIALS FOR AGRICULTURE**

Stella F Valle<sup>1</sup>, Amanda S Giroto<sup>1</sup>, Nicolai D Jablonowski<sup>2</sup>, Caue Ribeiro de Oliveira<sup>1</sup>; <sup>1</sup>Empresa Brasileira de Pesquisa Agropecuária, <sup>2</sup>Forschungszentrum Jülich

**PO1.09.220 ANTIOXIDANT ACTIVITY OF BOVINE GELATIN FILMS ADDED OF A LIPID EXTRACT FROM OLIVE GROWING RESIDUES**

Vilásia Guimarães Martins<sup>1</sup>, Fernanda Brazeiro<sup>1</sup>, Catarina Motta de Moura<sup>2</sup>; <sup>1</sup>Universidade Federal do Rio Grande, <sup>2</sup>Fundação Universidade Federal do Pampa

**PO1.09.221 ANTIOXIDANT ACTIVITY OF SODIUM ALGINATE FILMS FUNCTIONALIZED WITH PURPLE ONION PEEL AND BLUE FLOUR EXTRACT**

Vilásia Guimarães Martins<sup>1</sup>, Luan Gustavo dos Santos<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande

**TUESDAY, OCTOBER 31**

**Session P02(17:00 - 18:30) - poster area**

**PO2.01.2 CHEMICAL MODIFICATION OF POLY(PROPYLENE GLYCOL) BIS(2-AMINOPROPYL ETHER) WITH SATURATED DIMER FATTY ACID: EVALUATION OF APPLICABILITY IN SYNTHETIC DRILLING FLUIDS**

Aline Nascimento Vasconcelos<sup>1</sup>, Elessandre Alves de Souza<sup>2</sup>, Rosangela de Carvalho Balaban<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte, <sup>2</sup>Centro de Pesquisa e Desenvolvimento Leopoldo Américo Miguêz de Mello

**PO2.01.3 EFFECT OF THE DEGREE OF SUBSTITUTION ON THE RHEOLOGICAL PROPERTIES OF HYDROPHOBICALLY MODIFIED CARBOXYMETHYLCELLULOSE**

Bruna Luiza Batista de Lima<sup>1</sup>, Nívia do Nascimento Marques<sup>1</sup>, Elessandre Alves de Souza<sup>2</sup>, Rosangela de Carvalho Balaban<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte, <sup>2</sup>Centro de Pesquisa e Desenvolvimento Leopoldo Américo Miguêz de Mello

**PO2.01.4 FUNCTIONALIZATION OF “BOTTLEBRUSH” POLYDIENES**

Geilza Alves Porto<sup>1</sup>, Nelson Nolasco dos Santos<sup>2,1</sup>, Mariana M.V.M. Souza<sup>1</sup>, Marcos Lopes Dias<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio de Janeiro

**PO2.01.8 PREPARATION AND CHARACTERIZATION OF RIGID POLYURETHANE FOAMS WITH AGROINDUSTRIAL RESIDUES**

Jessica Cristina Burda<sup>1</sup>, Marafisa Lopez de Menezes<sup>1</sup>, Flávia Freitas Guimarães<sup>1</sup>, Adriano Gonçalves Viana<sup>2</sup>, Juliana Regina Kloss<sup>1</sup>; <sup>1</sup>Universidade Tecnológica Federal do Paraná, <sup>2</sup>Universidade Estadual de Ponta Grossa

**PO2.01.10 TUNG OIL AND ITACONIC ACID AS GREEN PLATFORMS FOR THE PRODUCTION OF MONOMERS AND POLYESTERS**

Julio Antonio Conti Silva<sup>1</sup>, Rafael Lopes Quirino<sup>2</sup>, Talita Martins Lacerda<sup>1</sup>; <sup>1</sup>Universidade de São Paulo, <sup>2</sup>Georgia Southern University

**PO2.01.11 LINEAR POLYGLYCEROL FROM CHLOROPROPANOL: NEW SYNTHETIC ROUTES.**

Maria Aparecida Ferreira César-Oliveira<sup>1</sup>, Ticiane Vieira de Paula Souza<sup>1</sup>, Valéria Gonçalves Costa<sup>2</sup>, Angelo Roberto dos Santos Oliveira<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná, <sup>2</sup>Instituto Nacional de Tecnologia

**PO2.01.12 INFLUENCE OF SURFACTANT AND COSTABILIZER INTERACTIONS IN THE KINETICS OF IN-SITU POLYSTYRENE/BASO4 NANOCOMPOSITES OBTAINED VIA MULTIPLE SEQUENTIAL MICROEMULSIONS**

Rafael Caetano Jardim Pinto da Silva Salvato<sup>1</sup>, Amilton Martins dos Santos<sup>1</sup>; <sup>1</sup>Escola de Engenharia de Lorena - Universidade de São Paulo

**PO2.01.13 PHOTODEGRADATION INVESTIGATION OF ALOE VERA AS A PHOTOPROTECTOR FOR POLY(LACTIC ACID)**

Pedro Henrique Medeiros Nicácio<sup>1</sup>, Ananda Albuquerque<sup>1</sup>, Matheus Ferreira<sup>1</sup>, Andreas Ries<sup>2</sup>, Jana Kolbe<sup>3</sup>, Renate Wellen<sup>4</sup>; <sup>1</sup>Universidade Federal de Campina Grande, <sup>2</sup>National University of Asunción, <sup>3</sup>Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM, <sup>4</sup>Universidade Federal da Paraíba

**PO2.01.15 RIGID POLYURETHANE FOAM WITH BENTONITE CLAY MODIFIED WITH NIOBIUM FOR PHOTODEGRADATION OF RHODAMINE B**

Samanta Teixeira Medeiros<sup>1</sup>, Maria Eduarda Santos Rodrigues de Souza<sup>1</sup>, Laís Jarenko da Cruz<sup>1</sup>, Marcus Vinicius de Liz<sup>1</sup>, Elenice Hass Caetano Lacerda<sup>2</sup>, Juliana Regina Kloss<sup>1</sup>; <sup>1</sup>Universidade Tecnológica Federal do Paraná, <sup>2</sup>Universidade Federal de Santa Catarina

**PO2.01.16 INFLUENCE OF THE CATALYST ADDITION PROCEDURE AND INITIAL MOLECULAR WEIGHT ON THE SOLID-STATE POLYMERIZATION OF POLY (LACTIC ACID)**

Sílvia Helena Prado Bettini<sup>1</sup>, Livia Maria Garcia Gonçalves<sup>1</sup>, Rosario Elida Suman Bretas<sup>1</sup>; <sup>1</sup>Universidade Federal de São Carlo - Campus São Carlos

**PO2.01.18 MODIFICATION OF EUDRAGIT S100 POLYMER USING UGI MULTICOMPONENT REACTION**

Taylor Ferreira da Paz Gomes<sup>1</sup>, Cássia Almeida Brito<sup>1</sup>, Marcos Lopes Dias<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO2.01.19 INSIGHTS INTO THE BACKBITING REACTION IN ACRYLIC ACID POLYMERIZATION: A MODELING APPROACH**

Victor Augusto Salles<sup>1</sup>; <sup>1</sup>ESCOLA POLITÉCNICA da USP

**PO2.01.20 SYNTHESIS OF STYRENE-TMPTA ACIDIC RESIN AND ITS APPLICATION AS A CATALYST IN THE GLYCEROL ACETYLATION**

William Mendes Godoy<sup>1</sup>, Giovanna Costa Lima<sup>1</sup>, Leandro Gonçalves de Aguiar<sup>1</sup>, Nuno A. B. S. Graça<sup>2</sup>, Alfrío Egídio Rodrigues<sup>2</sup>; <sup>1</sup>Escola de Engenharia de Lorena - Universidade de São Paulo, <sup>2</sup>Faculdade de Engenharia da Universidade do Porto

**PO2.02.26 FUEL CELL PERFORMANCE OF ACRYLAMIDE BASED HYDROCARBON PROTON EXCHANGE MEMBRANES**

João Henrique Lingner Moura<sup>1</sup>, Letícia Guerreiro da Trindade<sup>2</sup>, Emilse Maria Agostini Martini<sup>1</sup>, César Liberato Petzhold<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Universidade de São Paulo

**PO2.02.28 RHEOLOGICAL PARAMETERS OF PLA/EGGSHELL DETERMINED BY TORQUE RHEOMETRY**

Daniella Stepheny Carvalho Andrade<sup>1</sup>, Lara Menezes Melo Oliveira<sup>1</sup>, Renata Barbosa<sup>2</sup>, Tatianny Soares Alves<sup>2</sup>, Yêda Medeiros Bastos de Almeida <sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco, <sup>2</sup>Universidade Federal do Piauí

**PO2.02.29 EVALUATION OF MECHANICAL BEHAVIOR OF OFFSHORE MOORING POLYESTER FIBERS BY HYDROLYSIS PROCESS**

Ignacio Melito<sup>1</sup>, Daniel Magalhães da Cruz<sup>2</sup>, Aleones José da Cruz Júnior<sup>3</sup>, Ivan Napoleão Bastos<sup>4</sup>, Ana Lúcia Nazareth da Silva<sup>5</sup>, Jakson Manfredini Vassoler<sup>2</sup>, Fernanda Mazuco Clain<sup>1</sup>, Carlos Eduardo Marcos Guilherme<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande, <sup>2</sup>Universidade Federal do Rio Grande do Sul, <sup>3</sup>Instituto Federal de Educação, Ciência e Tecnologia Goiano, <sup>4</sup>Universidade do Estado do Rio de Janeiro, <sup>5</sup>Universidade Federal do Rio de Janeiro

**PO2.02.30 ANALYSIS OF ULTRAVIOLET EXPOSURE IN SYNTHETIC FIBERS OF POLYESTER AND HIGH MODULUS POLYETHYLENE**

Daniel Magalhães da Cruz<sup>1,2</sup>, Marcelo de Ávila Barreto<sup>3,2</sup>, Larissa Basei Zangalli<sup>2</sup>, Felipe Tempel Stumpf<sup>1</sup>, Carlos Eduardo Marcos Guilherme<sup>3</sup>, Ivan Napoleão Bastos<sup>4</sup>, Ana Lúcia Nazareth da Silva<sup>5</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Tecnofibers Desenvolvimento e Tecnologia Ltda, <sup>3</sup>Universidade Federal do Rio Grande, <sup>4</sup>Universidade do Estado do Rio de Janeiro, <sup>5</sup>Universidade Federal do Rio de Janeiro

**PO2.02.31 IMPREGNATION OF GREEN PROPOLIS IN PLLA COMPOSITES WITH SUPERCRITICAL CO<sub>2</sub> FOR ACTIVE FOOD PACKAGING**

Gisele de Campos Ferreira<sup>1</sup>, Mathilde Julienne Gisèle Champeau <sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO2.02.32 EXTRACTION OF LOW MOLAR MASS KERATIN FROM FEATHER MEAL**

Guilherme Emanuel de Queiros Souza<sup>1</sup>, Glaucia Regina Medeiros Burin<sup>1</sup>, Rilton Alves de Freitas<sup>1</sup>, Graciela Ines Bolzon de Muniz<sup>1</sup>, Helton José Alves<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná

**PO2.02.34 EFFECT OF THE CROSSLINK CONDITIONS ON THE THERMAL PROPERTIES OF A POLY(VINYL ALCOHOL)-BASED MEMBRANE**

Camila Suliani Raota<sup>1</sup>, Janaina da Silva Crespo<sup>1</sup>, Camila Baldasso<sup>1</sup>, Marcelo Giovanela<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul

**PO2.02.39 MECHANICAL BEHAVIOR OF POLY(ACRYLONITRILE-CO-METHACRYLIC ACID) ELECTROSPUN MEMBRANES IN FUNCTION OF ACID CONTENT**

Luiz Guilherme Abreu de Paula<sup>1</sup>, Geilza Alves Porto<sup>1</sup>, Marcos Lopes Dias<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO2.02.43 CHARACTERIZATION AND COMPARISON OF LIGNINS FROM BANANA PSEUDOSTEM ISOLATED BY DIFFERENT TREATMENTS**

Rosangela Almeida Maia<sup>1</sup>, Adilson Roberto Gonçalves<sup>1</sup>, Gustavo Ventorim<sup>1</sup>; <sup>1</sup>Universidade Estadual Paulista

**PO2.02.44 SHEAR STRENGTH IN THE GLUE LINE TO EVALUATE THE USE OF THE ADHESIVE EXTRACTED FROM THE SWIMMING BLADDER OF THE BLACK HAKE (MACRODON ANCYLON)**

Vera Lúcia Dias Silva<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Pará

**PO2.03.46 DEVELOPMENT OF NANOCOMPOSITES BASED ON DIFFERENT PHOTOSENSITIVE RESINS AND GRAPHENE OBTAINED VIA 3D PRINTING FOR DENTAL USE**

Ademir José Zattera<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul

**PO2.03.47 EFFECT OF CARBON NANOTUBE CONCENTRATION ON THE ELECTRICAL, THERMAL AND MECHANICAL PROPERTIES OF NTC/EPOXY NANOCOMPOSITES**

Amanda Calegari Zanuso<sup>1</sup>, Claudia Merlini<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO2.03.49 FUNCTIONALIZED LEATHER FOR ELIMINATING THE SARS-COV-2 VIRUS**

Ana Gabriele da Costa Sales<sup>1</sup>, Gleison Neres Marques<sup>2</sup>, Roberta Yonara Nascimento Reis<sup>2</sup>, Lara Kelly Ribeiro<sup>3</sup>, Luiz Gustavo Pagotto Simões<sup>4</sup>, Daniel T. Minozzi<sup>4</sup>, Juan Andrés<sup>5</sup>, Marcelo Assis<sup>5</sup>, Lucia Mascaro<sup>2</sup>, Elson Longo<sup>3</sup>; <sup>1</sup>Universidade Federal do Piauí, <sup>2</sup>Universidade Federal de São Carlo - Campus São Carlos, <sup>3</sup>Universidade Federal de São Carlos, <sup>4</sup>Nanox, <sup>5</sup>Universitat Jaume I

**PO2.03.50 ALGINATE FILAMENTS REINFORCED WITH CELLULOSE NANOCRYSTALS FROM TEXTILE COTTON WASTE**

Victor Kreutzfeld<sup>1</sup>, Lucas Souza da Silva<sup>1</sup>, Andrea Cristiane Krause Bierhalz<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO2.03.52 POLYCAPROLACTONE/AMINO-MODIFIED SODIUM ALGINATE ELECTROSPUN CORE-SHELL FIBERS**

Anna Leticia Martinez Martinez Toledo<sup>1</sup>, Carolina dos Santos Silva<sup>1</sup>, Thalles Rafael Silva Rêgo<sup>1</sup>, Marcos Lopes Dias<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO2.03.54 APPLICATION OF PANI/TITANIA HYBRIDS IN ELECTORRHEOLOGICAL FLUIDS**

Vanessa Sobreiro Feitosa<sup>1</sup>, Bluma Guenther Soares<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO2.03.55 PREPARATION AND CHARACTERIZATION OF SOLUTION BLOWN PVA/CNCS NANOBIOCOMPOSITE FIBERS**

Claudinei Junior Pires Ferreira da Silva<sup>1</sup>, Michelle Sostag Meruvia<sup>1</sup>; <sup>1</sup>Pontifícia Universidade Católica do Paraná

**PO2.03.60 FABRICATION AND CHARACTERIZATION OF POLYPYRROLE NANOCOMPOSITES WITH CARBON QUANTUM DOTS**

Gabriel Sanches Evangelho<sup>1</sup>, Gustavo Fernandes Galli<sup>1</sup>, Lara Fernandes dos Santos Lavelli<sup>1</sup>, Lucas Natálio Chavero<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO2.03.61 FRACTAL TYPE SELF ASSEMBLY FORMED BY CARBON QUANTUM DOTS INDUCED BY ELECTRIC FIELD IN POLYPYRROLE MATRIX**

Gustavo Fernandes Galli<sup>1</sup>, Gabriel Sanches Evangelho<sup>1</sup>, Lara Fernandes dos Santos Lavelli<sup>1</sup>, Lucas Natálio Chavero<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO2.03.63 PVDF NANOFIBERS WITH ZNO NANOSTRUCTURES FOR APPLICATION IN GAS SENSORS**

Jéssica Mantelato Bomfim Corrêa<sup>1</sup>, Lizandra Maria Zimmermann<sup>2</sup>, Lucas Duwe Linhares França<sup>2</sup>, Beatriz Marques Carvalho<sup>1</sup>, Deuber Lincon da Silva Agostini<sup>1</sup>; <sup>1</sup>Universidade Estadual Paulista, <sup>2</sup>Universidade Regional de Blumenau

**PO2.03.64 ENHANCING ELECTROSPINABILITY OF CHITOSAN: THE INFLUENCE OF PEO BLEND**

Júlia Audrem Gomes de Oliveira<sup>1</sup>, Djalma Souza<sup>1</sup>, Ricardo Martínez García<sup>2</sup>; <sup>1</sup>Universidade Estadual do Norte Fluminense Darcy Ribeiro, <sup>2</sup>Universidad de Buenos Aires

**PO2.03.65 SYNTHESIS AND DEPOSITION BY SLOT DIE COATING OF WATER BASED P3HT AND P3HT:PCBM NANOPARTICLES**

Júlia Ketzner Majewski<sup>1</sup>, Maiara de Jesus Bassi Gobara<sup>1</sup>, Lucimara Stolz Roman<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná

**PO2.03.66 MECHANICAL PROPERTIES OF POLYPROPYLENE/CALCIUM CARBONATE MICRO AND NANOCOMPOSITES**

Juliano Martins Barbosa<sup>1</sup>, Caroline Valadão Pacheco<sup>1</sup>, Gisele Szilagyi<sup>1</sup>, Patricia Candioto Migliari de Oliveira<sup>1</sup>, Renato Meneghetti Peres<sup>1</sup>, Helio Ribeiro<sup>1</sup>; <sup>1</sup>Universidade Presbiteriana Mackenzie

**PO2.03.67 INFLUENCE OF MINERAL FILLERS IN CARBON BLACKS TRIMODAL MIXTURE ON THE COLORIMETRIC PROPERTIES AND MECHANICAL BEHAVIOR OF LOW-DENSITY POLYETHYLENE FILM: PART 3**

Juliano Martins Barbosa<sup>1</sup>, Helio Ribeiro<sup>1</sup>, Luiz Antonio Pessan<sup>2</sup>; <sup>1</sup>Universidade Presbiteriana Mackenzie, <sup>2</sup>Univerdade Federal de São Carlos

**PO2.03.69 MORPHOLOGICAL STUDY OF COCONUT FIBERS MODIFIED BY MECHANICAL AGITATION IN AQUEOUS SOLUTION AND COMPARATION WITH ULTRASONIC AGITATION**

Celso Carlino Maria Fornari Junior<sup>1</sup>, Julio Santos Souza<sup>1</sup>; <sup>1</sup>Universidade Estadual de Santa Cruz

**PO2.03.70 TITANIUM NANOPARTICLES ENCAPSULATED WITH ZWITTERION AND USE IN ELECTORRHEOLOGICAL FLUIDS**

Keven Pimentel Delgiudice Gomes<sup>1</sup>, Jéssica Pereira Soares da Silva<sup>1</sup>, Bluma Guenther Soares<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO2.03.71 POLYURETHANE WASTE AS A REDUCING AGENT OF SILVER NANOPARTICLES**

Laís Bomfim Borba<sup>1</sup>, Matheus Souza Pimentel<sup>1</sup>, Maria Elena Leyva<sup>1</sup>, Marília Sonego<sup>1</sup>, Mirian de Lourdes Noronha Motta Melo<sup>1</sup>; <sup>1</sup>Universidade Federal de Itajubá

**PO2.03.72 EXTRACTION AND CHARACTERIZATION OF NANOCRYSTALS FROM PROCESS WASTES FOR APPLICATION IN TECHNOLOGICAL MATERIALS**

Lara Pagnoncelli Tusek<sup>1</sup>; <sup>1</sup>Pontifícia Universidade Católica do Paraná

**PO2.03.74 SYNTHESIS OF NANOPARTICLES BY ELECTROSPINNING**

Luana Priscila da Souza<sup>1</sup>, Otavio Rodrigues Diniz<sup>1</sup>, Beatriz Luci Fernandes<sup>1</sup>, Clayton Fernandes de Souza<sup>1</sup>; <sup>1</sup>Pontifícia Universidade Católica do Paraná

**PO2.03.76 FLUORESCENCE EMISSION FROM GELATIN CARBON DOT UNDER X-RAY FLUORESCENT IRRADIATION**

Mayara Martins Caetano<sup>1</sup>, Renata Galvão de Lima<sup>1</sup>, Roberto Santana da Silva<sup>2</sup>, Juliana Cristina Biazotto<sup>2</sup>; <sup>1</sup>Universidade Federal de Uberlândia, <sup>2</sup>Universidade de São Paulo

**PO2.03.77 USE OF POLYSTYRENE/POLYPYROLE/ORGANOPHILIC MONTMORILLONITE MEMBRANE AS A HUMIDITY SENSOR**

Dáfenes Beatriz Rodrigues dos Santos Silva<sup>1</sup>, Maurício Fonsêca de Aguiar<sup>1</sup>, Mônica Ferreira de Brito Rocha<sup>1</sup>, Andressa Nathally Rocha Leal<sup>1</sup>, Celso Pinto de Melo<sup>1</sup>, Kleber Gonçalves Bezerra Alves<sup>1</sup>, Eryca Francycle de Moura e Silva<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

**PO2.03.79 INFLUENCE OF OPERATIONAL PARAMETERS ON THE COLORING OF POLIAMIDE TEXTILES USING CURCUMIN/POLYMER NANOPARTICLES**

Márcia Gomes da Silva<sup>1</sup>, Fernanda Vitória Leimann<sup>2</sup>, Evandro Bona<sup>2</sup>, Alexandre José Sousa Ferreira<sup>3</sup>, Nívea Taís Vila<sup>1</sup>, Odinei Hess Gonçalves<sup>2</sup>; <sup>1</sup>Universidade Estadual de Maringá, <sup>2</sup>Universidade Tecnológica Federal do Paraná, <sup>3</sup>Universidade Federal de Santa Catarina

**PO2.03.81 APPLICATION OF ZNO NANOPARTICLES IN THE DEVELOPMENT OF ACRYLIC RESIN-BASED PAINT WITH ANTIFOULING PROPERTIES**

Leonardo Ramthun da Maia<sup>1</sup>, Dafne Aparecida do Nascimento<sup>1</sup>, Samanta Finsterbuch<sup>2</sup>, Renato César Tobias Porto<sup>3</sup>, Patricia Zigoski Uchoa<sup>2</sup>, Jean Carlos Hoepfner<sup>2</sup>, Wagner Mauricio Pachekoski<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina, <sup>2</sup>Fundação Universidade do Estado de Santa Catarina, <sup>3</sup>Universidade do Estado de Santa Catarina

**PO2.03.82 NANOENCAPSULATION OF THE OILY EXTRACT OF CHENOPODIUM AMBROSIODES L. IN LIGNIN USING AN ANTISOLVENT METHOD**

Samanta Finsterbuch<sup>1</sup>, Patricia Zigoski Uchoa<sup>1</sup>, Giovanna Piske Kricheldorf<sup>2</sup>, Jean Carlos Hoepfner<sup>1</sup>, Renato César Tobias Porto<sup>3</sup>, Sergio Henrique Pezzin<sup>1</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina, <sup>2</sup>Universidade da Região de Joinville, <sup>3</sup>Universidade do Estado de Santa Catarina

**PO2.03.83 ENHANCED SCALE INHIBITION PERFORMANCE BY POLYPHOSPHATE ENCAPSULATION IN POLYELECTROLYTE COMPLEXES**

Stéphanie Cavalcante de Morais<sup>1</sup>, Rosângela de Carvalho Balaban<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte

**PO2.03.84 DEVELOPMENT OF CORE-SHELL PVC/PMMA/PANI MEMBRANES BY COAXIAL ELECTROSPINNING**

Stephen Christina de Moraes<sup>1</sup>, Marcia Adriana Tomaz Duarte<sup>2</sup>, Sergio Henrique Pezzin<sup>3</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina, <sup>2</sup>DBM Engenharia e Desenvolvimento Científico LTDA, <sup>3</sup>Fundação Universidade do Estado de Santa Catarina

**PO2.03.85 MORPHOLOGICAL INFLUENCE ON THE INCORPORATION OF NANOCELLULOSE INTO DE MEMBRANES POLYVINYLIDENE FLUORIDE (PVDF)**

Tayse Circe Turossi<sup>1</sup>, Camila Baldasso<sup>1</sup>, Ademir José Zattera<sup>1</sup>, Jocelei Duarte<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul

**PO2.03.87 WATER ADSORPTION BEHAVIOR IN CARBON NANOTUBES PLASMA-FUNCTIONALIZED WITH MALEIC ANHYDRIDE AND UREA**

Teresa Tromm Steffen<sup>1,2</sup>, Daniela Becker<sup>1</sup>, Luis César Fontana<sup>1</sup>, Peter Hammer<sup>3</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina, <sup>2</sup>Plasmatex, <sup>3</sup>Universidade Estadual Paulista

**PO2.03.88 MAGNETICALLY ENHANCED ADSORPTION OF PHARMACEUTICALS FROM AQUEOUS MEDIUM USING MAGNETIC ALGINATE/POLYPYRROLE/ZNFE2O4 BEADS**

Victória Ross Soares<sup>1</sup>, Emily Cruz da Silva<sup>1</sup>, André Fajardo<sup>1</sup>; <sup>1</sup>Universidade Federal de Pelotas

**PO2.03.89 EFFECT OF CELLULOSE NANOCRYSTALS ON WATER ABSORPTION OF SULFONATED SBS BASED IONIC POLYMER METAL COMPOSITE**

Vítor Bühler Salomão<sup>1</sup>; <sup>1</sup>Universidade Federal de São Carlo - Campus São Carlos

**PO2.03.90 CHARACTERIZATION OF REDUCED GRAPHENE OXIDE: CHALLENGES IN DETERMINING OF ELECTRICAL CONDUCTIVITY FOR APPLICATION IN CONDUCTIVE INKS**

Ygor Matheus Pereira de Paula<sup>1</sup>, Maria Paula de Carvalho Freire<sup>1</sup>, Ana Leticia Fernandes dos Santos<sup>1</sup>, Maria Carolina Burgos Costa<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte

**PO2.04.92 NANOCELLULOSE HYDROGELS DERIVED FROM PALM SHEATHS: SYNTHESIS AND CHARACTERIZATION**

Alicia Carvalho Ribeiro<sup>1</sup>, Arthur de Carvalho Bento<sup>1</sup>, Guilherme do Nascimento<sup>1</sup>, Atilano Antonio Vegini<sup>1</sup>, Vinicyus Rodolfo Wiggers<sup>1</sup>; <sup>1</sup>Universidade Regional de Blumenau

**PO2.04.94 COMPOSITES BASED ON BACTERIAL CELLULOSE/AG3PO4 WITH POTENTIAL ANTIMICROBIAL ACTION**

Amanda Lyane Generoso<sup>1</sup>, Lais Roncalho Lima<sup>1</sup>, Marcelo Assis<sup>2</sup>, Hernane da Silva Barud<sup>3</sup>, Sandra Cruz<sup>1</sup>; <sup>1</sup>Univerdade Federal de São Carlos, <sup>2</sup>Universitat Jaume I, <sup>3</sup>Centro Universitário de Araraquara

**PO2.04.95 INFLUENCE OF THE WASHING PROCESS ON THE PROPERTIES OF CHITOSAN-ALGINATE COMPOSITE FILMS**

ANDRESSA DE ESPÍNDOLA SOBCZYK<sup>1</sup>, Débora Jung Luvizetto Faccin<sup>1</sup>, Nilo Sergio Medeiros Cardozo<sup>1</sup>, Isabel Cristina Tessaro<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO2.04.96 EFFECT OF ALGINATE ADDITION ON THE PHYSICOCHEMICAL PROPERTIES OF CHITOSAN FILMS**

ANDRESSA DE ESPÍNDOLA SOBCZYK<sup>1</sup>, Julia Frick Pavoni, Cláudia Leites Luchese, Débora Jung Luvizetto Faccin<sup>1</sup>, Nilo Sergio Medeiros Cardozo<sup>1</sup>, Isabel Cristina Tessaro<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO2.04.97 EVALUATION OF THE MECHANICAL PROPERTIES OF POLYMERIC BLENDS PRODUCED FROM EXPANDED POLYSTYRENE (EPS) AND WASTE TIRE RUBBER (WTR).**

Antonio José de Andrade Junior<sup>1</sup>, Silma de Sá Barros<sup>1</sup>, Emerson Ferreira da Silva<sup>1</sup>, Clodoaldo Saron<sup>1</sup>; <sup>1</sup>Universidade de São Paulo

**PO2.04.99 THE INFLUENCE OF MAGHEMITE ON CALCIUM ALGINATE BASED BIOHYDROGEL FORMATION**

Caroline Chibae de Amorim<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO2.04.100 COMPARATIVE STUDY OF THE EXTRACTION OF SOLUBLES FROM COCONUT FIBER IN AQUEOUS ALKALINE SOLUTION UNDER SHAKING AND REST**

Renato Reis Monteiro<sup>1</sup>, Celso Carlino Maria Fornari Junior<sup>1</sup>, Jhonatas M. Riqueza<sup>1</sup>; <sup>1</sup>Universidade Estadual de Santa Cruz

**PO2.04.104 IMPRESSIVE MECHANICAL AND BIOLOGICAL PROPERTIES OF FILMS OF QUATERNIZED CHITOSAN**

Danielle Bitencourt Faria<sup>1</sup>, Patrícia Santos Lopes<sup>1</sup>, Classius Ferreira da Silva<sup>1</sup>, Mariana Agostini de Moraes<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO2.04.105 BIOCOMPOSITES BASED ON PBAT AND SPENT COFFEE GROUNDS: EVALUATION OF BIODEGRADATION IN SOIL AND SIMULATED MARINE ENVIRONMENT**

Marcelo Ferreira Leão de Oliveira<sup>1</sup>, Debora Cristina da Silva Santos<sup>1</sup>, Carolina Quaresma Passos<sup>1</sup>, Simone Maria de Rezende<sup>2,1</sup>, Fernanda Cristina Fernandes Braga<sup>1</sup>, Marcia Gomes de Oliveira<sup>1</sup>; <sup>1</sup>Instituto Nacional de Tecnologia, <sup>2</sup>Faculdade de Filosofia Ciências E Letras Souza Marques

**PO2.04.106 DYNAMICAL-MECHANICAL PROPERTIES OF RECYCLED POLYMER FROM MULTILAYER FILMS AFTER STRUCTURAL CHANGE BY HIGH SHEAR RATE. RECYCLING, MULTILAYER FILMS, LDPE, SHEAR RATE, DMA.**

Antonio José de Andrade Junior<sup>1</sup>, Emerson Ferreira da Silva<sup>1</sup>, Clodoaldo Saron<sup>1</sup>; <sup>1</sup>Universidade de São Paulo

**PO2.04.107 EXPLORING THE USE OF A THERMOMECHANICAL ANALYZER TO ASSESS THE AGING OF PROPELLANTS**

Juan Peixoto Barroco Magalhães<sup>1</sup>, Maurício Ferrapontoff Lemos<sup>1</sup>, Ana Paula da Silva<sup>1</sup>, Priscila Simões Teixeira Amaral<sup>1</sup>, Fernanda Santos da Luz<sup>1</sup>; <sup>1</sup>Instituto de Pesquisas da Marinha

**PO2.04.109 INFLUENCE OF UNTREATED AND ALKALI-TREATED BARLEY BAGASSE ON MECHANICAL PROPERTIES OF POLYESTER RESIN COMPOSITES**

Gabriel Luiz Corrêa<sup>1</sup>, Claudia Merlini<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO2.04.111 DEVELOPMENT OF SULFONATED PEEK IONIC POLYMER METAL COMPOSITES: ELECTROMECHANICAL CHARACTERIZATIONS**

Guilherme Eduardo de Oliveira Blanco<sup>1</sup>, Renan Lopes Valerio<sup>1</sup>, Rafael Barbosa<sup>2</sup>, Matheus Colovati Saccardo<sup>1</sup>, Kaique Afonso Tozzi<sup>3</sup>, Carlos Henrique Scuracchio<sup>1</sup>; <sup>1</sup>Univerdade Federal de São Carlos, <sup>2</sup>Universidade Federal de São Carlos, <sup>3</sup>Grenoble Institute of Technology Institut polytechnique de Grenoble

**PO2.04.112 CONSOLIDATION AND CHARACTERIZATION OF CARBON FIBER/SNAP CURE EPOXY RESIN LAMINATES PRODUCED BY PREPREG HOT PRESSING**

Guilherme Ferreira de Melo Morgado<sup>1</sup>, Larissa Stieven Montagna<sup>1</sup>, Fabio Roberto Passador<sup>1</sup>, Mirabel Cerqueira Rezende<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO2.04.113 FRACTOGRAPHIC ANALYSIS OF FATIGUE FAILURE IN CFRP COMPOSITE WITH PA6 MATRIX**

Guilherme Ferreira de Melo Morgado<sup>1</sup>, Larissa Stieven Montagna<sup>1</sup>, Fabio Roberto Passador<sup>1</sup>, Mirabel Cerqueira Rezende<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO2.04.116 INFLUENCE OF MIXING SEQUENCE ON THE SELECTIVE LOCALIZATION OF CELLULOSE NANOCRYSTALS IN POLY(LACTIC ACID)/POLY(ε-CAPROLACTONE) BLENDS**

Marcelo Chinelatto<sup>1</sup>, Felipe Henrique de Oliveira Silva<sup>1</sup>; <sup>1</sup>Universidade de São Paulo

**PO2.04.120 EFFECTS OF DIFFERENT CURING AGENT TYPES AND STOICHIOMETRY RATIO ON THE CROSSLINKING GRADE AND ITS CORRELATION WITH THE YELLOWING RATE OF WATER-BASED EPOXY CLEAR COATINGS**

Mauro Sergio Da Silva<sup>1</sup>, Hélio Wiebeck<sup>2</sup>; <sup>1</sup>DEPARTAMENTO de ENG. METALÚRGICA e de MATERIAIS da ESCOLA POLITÉCNICA da USP, <sup>2</sup>ESCOLA POLITÉCNICA da USP

**PO2.04.125 PRODUCTION OF BIOCIDAL POLYMERIC COATINGS BASED ON ALKYLATED POLYETHYLENEIMINE AND PMMA BLENDS**

Rafael Affonso Netto<sup>1</sup>, Marta Cristina Teixeira Duarte<sup>1</sup>, Camila Delarmelina<sup>1</sup>, Liliane Maria Ferrareso Lona<sup>1</sup>; <sup>1</sup>Universidade Estadual de Campinas

**PO2.04.126 REDOX-RESPONSIVE HYDROGELS OF THIOLATED PECTIN: POTENTIAL VEHICLES FOR DRUG RELEASE**

Rafael Fonseca Neves Quadrado<sup>1</sup>, André Ricardo Fajardo<sup>1</sup>; <sup>1</sup>Universidade Federal de Pelotas

**PO2.04.127 PROPERTIES OF ALGINATE CAPSULES: A COMPARATIVE STUDY USING DIFFERENT CROSSLINKERS**

Maximiliano Alvarez<sup>1</sup>, Leticia Fonseca Balcewicz<sup>1</sup>, Renata Pinheiro Sanches<sup>1</sup>, Bruno Campos da Silva<sup>2</sup>, Izabel Cristina Riegel Vidotti<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná, <sup>2</sup>Nova Pesquisa Química LTDA

**PO2.04.128 COCONUT FIBER TREATED AS A FUNCTION OF TIME WITH METAKAOLIN AND INDUSTRIAL ASH SOLUTION**

Renato Reis Monteiro<sup>1</sup>, Celso Carlino Maria Fornari Junior<sup>1</sup>; <sup>1</sup>Universidade Estadual de Santa Cruz

**PO2.04.130 STUDY OF POLYMERIC COMPOSITES FROM LDPE/NATURAL FIBERS FROM THE AMAZON**

Silma de Sá Barros<sup>1</sup>, Antonio José de Andrade Junior<sup>2</sup>, Flávio Augusto de Freitas<sup>3</sup>, Clodoaldo Saron<sup>2</sup>; <sup>1</sup>Escola de Engenharia de Lorena - Universidade de São Paulo, <sup>2</sup>Universidade de São Paulo, <sup>3</sup>Centro de Biotecnologia do Amazonas

**PO2.04.132 EFFECTS OF ACCELERATED AGING ON A GLASS FIBER - EPOXY COMPOSITE WITH SELF-HEALING AGENT FOR PIPELINE REPAIR IN THE OIL INDUSTRY**

Taynnara Mendes Veloso<sup>1</sup>, Ana Paula Cysne Barbosa<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte

**PO2.04.133 EVALUATION OF COMPATIBILIZATION IN RECYCLABLE BLENDS AND COMPOSITES FROM THE AMAZON**

Thais da Silva Santos<sup>1</sup>, Bianca Marinho da Silva<sup>1</sup>, Eduardo da Silva Coelho<sup>1</sup>, Isaac Aurelio Teixeira Monteiro<sup>1</sup>, Raiane Cunha da Silva<sup>1</sup>, José Costa de Macêdo Neto<sup>2</sup>; <sup>1</sup>Universidade do Estado do Amazonas, <sup>2</sup>Universidade Estadual de Campinas

**PO2.04.135 STUDY OF THE TRIBOLOGICAL PROPERTIES OF PARTS OBTAINED BY 3D PRINTING USING PET FILAMENT WITH CARBON FIBER**

Maria Eduarda Araújo Camargo Alves<sup>1</sup>, Vaneide Gomes<sup>1</sup>, Erica Cristina Almeida<sup>1</sup>, Erickson Fabiano Moura Sousa Silva<sup>1</sup>; <sup>1</sup>Universidade Estadual de Santa Cruz

**PO2.04.136 PRODUCTION OF CELLULOSE/PVOH/CHONDROITIN SULFATE MEMBRANES AND POTENTIAL APPLICATIONS AS A TRANSDERMAL MEMBRANE**

Juliano Brisola<sup>1,2</sup>, Paula Paulino Silva<sup>1</sup>, Vinicius Augusto de Melo Gomes<sup>1</sup>, Gizilene Maria de Carvalho<sup>1</sup>; <sup>1</sup>Universidade Estadual de Londrina, <sup>2</sup>Universidade Estadual de Londria

**PO2.04.137 USE OF CELLULOSE AND ALGINATE BEADS WITH MAGNETITE NANOPARTICLES FOR ADSORPTION OF CADMIUM IONS**

Vinicius Augusto de Melo Gomes<sup>1</sup>, Paula Paulino Silva<sup>1</sup>, Juliano Brisola<sup>1,2</sup>, Gizilene Maria de Carvalho<sup>1</sup>; <sup>1</sup>Universidade Estadual de Londrina, <sup>2</sup>Universidade Estadual de Londria

**PO2.04.138 ACTIVE COMPOSITE FILMS- CARBOXYMETHYLCELLULOSE/ CURCUMIN AND EGG-SHELL POWDER COMPLEX**

Lara Menezes Melo Oliveira<sup>1</sup>, Felipe Pedro da Costa Gomes<sup>1</sup>, Yêda Medeiros Bastos de Almeida<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

**PO2.05.139 SUSTAINABLE GRAPHENE OXIDE-CHITOSAN FILTER ELEMENTS**

Áquila Oliveira de Alencar<sup>1</sup>, Gláucia Regina Medeiros Burin<sup>1</sup>, Helton José Alves<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná

**PO2.05.142 MELT MIXING PROCESS PARAMETER ANALYSIS OF PVDF/EVA FILLED WITH GNP TO INSURE BEST PROPERTIES**

Beatriz Soares Cunha<sup>1</sup>, Débora Pereira Schmitz<sup>1</sup>, Bluma Guenther Soares<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO2.05.144 THE INFLUENCE OF PRESSURE IN ELECTRICAL RESISTANCE WELDING OF CARBON FIBER/POLY(ARYL ETHER KETONE) THERMOPLASTIC COMPOSITE**

João Victor Passos Neves Gomes<sup>1</sup>, Rodrigo Bueno de Souza<sup>2</sup>, Juliana Bovi de Oliveira<sup>1</sup>, Luis Felipe Paula Santos<sup>1</sup>, Michelle Leali Costa<sup>1</sup>, Edson Cocchieri Botelho<sup>2</sup>; <sup>1</sup>Instituto de Pesquisas Tecnológicas do Estado de São Paulo, <sup>2</sup>Universidade Estadual Paulista

**PO2.05.146 EFFECT OF FILLING PERCENTAGE ON THE TENSILE STRENGTH OF PARTS PRINTED BY FDM**

Luana Bolfe Concatto<sup>1</sup>, Eliane Neves da Mota<sup>1</sup>, Carmen I. W. Calcagno<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia Sul

**PO2.05.147 CORRELATION BETWEEN UV-CURING INKJET ADHESION AND AIR PLASMA TREATMENT IN POLYURETHANE COATING**

Maria Augusta Saemi Yokomichi<sup>1</sup>, Rogério Scafutto Scotton<sup>1</sup>, Maurício Pinheiro de Oliveira<sup>1</sup>, Lilia Muller Guerrini<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO2.05.148 STUDIES ON PLA STRUCTURES USING 3D PRINTING FOR RADAR ABSORBING PROPERTIES**

Tamara Indrusiak Silva<sup>1</sup>, Iaci Miranda Pereira<sup>1</sup>, Matheus da Silva Domingos<sup>1</sup>, Luis David Peregrino de Farias<sup>1</sup>, Débora Pereira Schmitz<sup>2</sup>, Leonardo Santana<sup>3</sup>, Guilherme Mariz de Oliveira Barra<sup>3</sup>, Bluma Guenther Soares<sup>2</sup>; <sup>1</sup>Centro Tecnológico do Exército, <sup>2</sup>Universidade Federal do Rio de Janeiro, <sup>3</sup>Universidade Federal de Santa Catarina

**PO2.06.150 PROPERTIES OF CONVEYOR BELT RUBBER COVERS USED IN MINING**

Christiano Giansi Bastos Andrade<sup>1</sup>, Flavia Leticia Silva Freitas<sup>1</sup>, Carla Almêda Correia<sup>2</sup>, Pedro Garcia Lins<sup>2</sup>, Patrick Falqueto<sup>3</sup>, José J. Penagos<sup>4</sup>, Hélio Wiebeck<sup>2</sup>, Samuel Marcio Toffoli<sup>2</sup>, Ticiane Sanches Valera<sup>5,2</sup>; <sup>1</sup>Escola Politécnica de Universidade de São Paulo, <sup>2</sup>ESCOLA POLITÉCNICA da USP, <sup>3</sup>Vale S/A, <sup>4</sup>Instituto Tecnológico Vale, <sup>5</sup>DEPARTAMENTO de ENG. METALÚRGICA e de MATERIAIS da ESCOLA POLITÉCNICA da USP

**PO2.06.152 A STEP TOWARDS UNDERSTANDING THE INTERACTION BETWEEN RUBBER CARBOXYL GROUPS AND LIGNIN THROUGH ATR-FTIR AND DMA**

Gustavo Ninho Campos<sup>1</sup>, Elisson Brum Dutra da Rocha<sup>1</sup>, Ana Maria Furtado de Sousa<sup>1</sup>, Marco A. G. de Figueiredo<sup>1</sup>, Cristina R. G. Furtado<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO2.06.153 EFFECT OF SOYBEAN POLYOL CONTENT ON PHASE SEPARATION OF THERMOPLASTIC POLYURETHANE OBTAINED BY REACTIVE EXTRUSION**

Juliano R. Ernzen<sup>1,2</sup>, Angel Marcos Fernández<sup>3</sup>, Otávio Bianchi<sup>1,4</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>Mantoflex Poliuretanos, <sup>3</sup>Institute of Polymer Science and Technology, <sup>4</sup>Universidade Federal do Rio Grande do Sul

**PO2.06.154 INFLUENCE OF ACCELERATED AGING IN WEATHEROMETER CHAMBER ON THE ADHESION OF A FABRIC-REINFORCED CONVEYOR BELT**

Pedro Garcia Lins<sup>1</sup>, Flavia Leticia Silva Freitas<sup>2</sup>, Carla Almêda Correia<sup>3</sup>, Patrick Falqueto<sup>4</sup>, José J. Penagos<sup>5</sup>, Christiano Giansi Bastos Andrade<sup>2</sup>, Hélio Wiebeck<sup>3</sup>, Samuel Marcio Toffoli<sup>3</sup>, Ticiane Sanches Valera<sup>1,3</sup>; <sup>1</sup>DEPARTAMENTO de ENG. METALÚRGICA e de MATERIAIS da ESCOLA POLITÉCNICA da USP, <sup>2</sup>Escola Politécnica de Universidade de São Paulo, <sup>3</sup>ESCOLA POLITÉCNICA da USP, <sup>4</sup>Vale S/A, <sup>5</sup>Instituto Tecnológico Vale

**PO2.06.155 INFLUENCE OF PROCESSING ON THE DISPERSION OF CARBON NANOTUBES IN RUBBER COMPOSITES**

Priscila Almeida Lucio Campini<sup>1</sup>, Felipe Gustavo Ornaghi<sup>1</sup>, Suel Eric Vidotti<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO2.06.157 EFFECT OF MIXTURE OF ACCELERATORS AND ADDITION SEQUENCE OF ADDITIVES ON THE PROPERTIES OF NATURAL RUBBER (NR) AND STYRENE-BUTADIENE COPOLYMER (SBR) ELASTOMERIC MATRIX**

Steffany dos Santos Gomes Pacheco<sup>1</sup>, Thiago Castro Lopes<sup>1</sup>, Leila Yuan Visconte<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO2.07.160 PRODUCTION AND CHARACTERIZATION OF BIODEGRADABLE ACTIVE FILMS FOR COSMETIC APPLICATIONS**

Flávia Rafaela Ludka<sup>1</sup>, Ana Beatriz Klosowski<sup>1</sup>, Francisca Alves Vieira<sup>1</sup>, Giovani Almeida Camargo<sup>1</sup>, Juliana Bonametti Olivato<sup>1</sup>; <sup>1</sup>Universidade Estadual de Ponta Grossa

**PO2.07.161 LOW COST HETEROGENEOUS CATALYST FOR BIODIESEL PRODUCTION**

Otávio Mariotto Silva<sup>1</sup>, Andreia Fatima Zanette<sup>1</sup>; <sup>1</sup>UNESP - Campus de Rosana

**PO2.07.162 ABIOTIC DEGRADATION OF OXO-DEGRADABLE BAGS: POTENTIAL SOURCES OF MICROPLASTICS**

Raimara de Souza Gomes<sup>1</sup>, Walter Ruggeri Waldman<sup>2</sup>, Andreia Neves Fernandes<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Universidade Federal de São Carlos - Campus Sorocaba

**PO2.07.163 XEROGEL OF LIGNOCELLULOSE EXTRACTED FROM COFFEE HUSKS AND CALCIUM PEROXIDE FOR THE CONTROLLED RELEASE OF O<sub>2</sub>**

Anna Clara Drumond Vilas Boas<sup>1</sup>, Camila Gruber Chiaregato<sup>1</sup>, Denise Freitas Siqueira Petri<sup>1</sup>; <sup>1</sup>Universidade de São Paulo

**PO2.07.164 BIODEGRADABLE FILMS BASED ON CASSAVA STARCH AND RICE HUSK WITH IMPROVED PROPERTIES**

Camila Horst<sup>1</sup>, Bruno dos Santos Lima<sup>1</sup>, Sílvia Regina Grando<sup>1</sup>, Simone Hickmann Flores<sup>1</sup>, Tania Maria Haas Costa<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO2.07.165 BIODEGRADABLE POLYMER MATERIAL FROM MACROALGAE**

Daniela Pravato Vieira<sup>1</sup>, Fábio de Faria Neves<sup>1</sup>, Daniela Becker<sup>2</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina, <sup>2</sup>Fundação Universidade do Estado de Santa Catarina

**PO2.07.166 PRODUCTION AND REUSE OF KOMBUCHA WASTE FOR CELLULOSE PRODUCTION FROM DIFFERENT PLANTS EXTRACT**

Rhodivam Lucas Mendes Feitosa<sup>1</sup>, Pâmela B. F.G. S. de Luna<sup>1</sup>, Karina Carvalho de Souza<sup>1</sup>, Daniella Stepheny Carvalho Andrade<sup>1</sup>, Dayanna Kelly Marques de Oliveira<sup>1</sup>, Fernanda Sobreira Silva<sup>1</sup>, Alexciana Pereira de Melo<sup>1</sup>, Glória Maria Vinhas<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

**PO2.07.169 BACTERIAL CELLULOSE PRODUCTION USING ERYTHRINA MULUNGU TEA AS A GROWTH MEDIUM**

Fernanda Vieira Amorim<sup>1</sup>, Mariana Alves Henrique<sup>1</sup>, Girlaine Santos da Silva<sup>1</sup>, Glória Maria Vinhas<sup>1</sup>, Severino Alves Júnior<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

**PO2.07.170 ADSORPTION OF THE ORGANOPHOSPHATE PESTICIDE ON PHOTODEGRADED POLYETHYLENE MICROPLASTICS**

Gabriela Zolet Diaz<sup>1</sup>, Eric Maciel da Silva<sup>1</sup>, Kelven Gabriel de Azevedo da Conceição<sup>1</sup>, Giuliana Buzelli Santana<sup>1</sup>, Diego de Quadros Melo<sup>2</sup>, Lucila Adriani de Almeida Coral<sup>1</sup>, Carla Bastos Vidal<sup>1</sup>; <sup>1</sup>Universidade Tecnológica Federal do Paraná, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Sertão Pernambucano

**PO2.07.171 STUDY OF THE CONTAMINATION OF SAMPLES OBTAINED VIA PYROLYSIS OF VIRGIN POLYMERS AND PLASTIC WASTE RICH IN POLYOLEFINS**

Jamilly Andressa Santos Barros<sup>1</sup>, Laura Pires da Mata Costa<sup>1</sup>, Débora Micheline Vaz de Miranda<sup>1</sup>, Larissa Leite de Almeida Carvalho<sup>1</sup>, Yasmin Fialho Siqueira<sup>1</sup>, Natasha Kelber Sitton<sup>1</sup>, Mateus Marques Barbio<sup>1</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO2.07.173 USE OF LIGNIN-BASED HYDROGEL EXTRACTED FROM THE PEEL OF TINGUI (*MAGONIA PUBESCENS* A. ST. -HIL.) FOR DYE ADSORPTION**

Bianca Magalhães Benevides<sup>1</sup>, Caroline Pathiele Xavier Andrade<sup>1</sup>, Débora Vilela Franco<sup>1</sup>, João Vinícios Wirbitzki da Silveira<sup>1</sup>; <sup>1</sup>Universidade Federal dos Vales do Jequitinhonha E Mucuri

**PO2.07.174 FULL FACTORIAL EXPERIMENTAL DESIGN ON EXTRACTION PROCESS OF TAMARIND SEED GUM (*TAMARINDUS INDICA* L.)**

Thainara de Matos Silverio<sup>1</sup>, Jordanna Gabrielle Amaral de Matos<sup>1</sup>, João Vinícios Wirbitzki da Silveira<sup>1</sup>; <sup>1</sup>Universidade Federal dos Vales do Jequitinhonha E Mucuri

**PO2.07.175 PREPARATION OF SODIUM ALGINATE HYDROGELS FOR ADSORPTION OF COPPER IONS FROM INDUSTRIAL WASTEWATER**

Lucas B. Moço<sup>1</sup>, Júlia Audrem Gomes de Oliveira<sup>1</sup>, Camila Mendonça Dias<sup>1</sup>, Djalma Souza<sup>1</sup>; <sup>1</sup>Universidade Estadual do Norte Fluminense Darcy Ribeiro

**PO2.07.176 COMPOSITION ANALYSIS, RECYCLING AND REDESIGN PROPOSAL OF DISPOSABLE FACE MASKS**

Larissa Batista Nardini<sup>1</sup>, Lais Roncalho Lima<sup>2</sup>, Sandra Cruz<sup>2</sup>; <sup>1</sup>Universidade Federal de São Carlo - Campus São Carlos, <sup>2</sup>Univerdade Federal de São Carlos

**PO2.07.178 PLASTIC PYROLYSIS VAPORIZATION**

Laura Pires da Mata Costa<sup>1</sup>, Julián Andrés García Cárdenas<sup>1</sup>, Amanda Lemette Teixeira Brandão<sup>2</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Pontifícia Universidade Católica do Rio de Janeiro

**PO2.07.179 CHARACTERIZATION OF THE FRACTION OF SOLID LIGNOCELLULOSIC RESIDUES OBTAINED AFTER ENZYMATIC HYDROLYSIS AND EVALUATION OF ITS POTENTIAL APPLICATIONS IN POLYMERIC MATERIALS**

Luana Alves de Queiroz<sup>1</sup>, Daniel Pasquini<sup>1</sup>, Patrisia de Oliveira Rodrigues<sup>1</sup>; <sup>1</sup>Universidade Federal de Uberlândia

**PO2.07.180 STUDY OF THE PROPERTIES OF A COMPOSITE OF EXPANDED POLYSTYRENE WITH MDF**

Adonilson Reis Freitas<sup>1</sup>, Luciana Gaffo<sup>1</sup>, Paulo Ricardo de Souza<sup>2</sup>, Julia Maria de Oliveira Callegari<sup>1</sup>, Jaqueline Portes Pagnonceli<sup>1</sup>; <sup>1</sup>Universidade Estadual do Oeste do Paraná, <sup>2</sup>Universidade Federal de Santa Maria

**PO2.07.181 EVALUATION OF ENVIRONMENTAL IMPACTS AND PRODUCTION PROCESSES OF CHITOSAN DERIVED FROM SHRIMP EXOSKELETONS**

Marcelo Bruno de Oliveira Silva<sup>1</sup>, Sueli Aparecida de Oliveira<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Federal University of ABC

**PO2.07.182 POLYMERS COMBINED WITH GEOLOGICAL MATERIAL AS A HUMAN LEGACY IN EARTH'S RECORD.**

Maria Aparecida Ferreira César-Oliveira<sup>1</sup>, Fernanda Avelar Santos<sup>1</sup>, Angelo Roberto dos Santos Oliveira<sup>1</sup>, Giovana Rebelo Diório<sup>1</sup>, Carlos Conforti Ferreira Guedes<sup>1</sup>, Gerson Fernandino<sup>2</sup>, Paulo C. F. Giannini<sup>3</sup>, Rodolfo J. Angulo<sup>1</sup>, Maria Cristina de Souza<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná, <sup>2</sup>Universidade Federal do Rio Grande do Sul, <sup>3</sup>Universidade de São Paulo

**PO2.07.184 CARBOXYMETHYL CELLULOSE/MORINGA OLEIFERA SEED HUSK ADSORBENTS FOR THE TREATMENT OF UNDERGRADUATE LABORATORY WASTE**

Marleidy Poma Callisaya<sup>1</sup>, Denise Freitas Siqueira Petri<sup>1</sup>, Cristiane Medina Finzi-Quintão<sup>2</sup>, Pedro Vitoriano de Oliveira<sup>1</sup>, Dairon Pérez Fuentes<sup>1</sup>; <sup>1</sup>Universidade de São Paulo, <sup>2</sup>Universidade Federal de São João Del Rei

**PO2.07.185 UTILIZING POLYURETHANE WASTE IN THE PRODUCTION OF RIGID FOAMS: CHARACTERIZATION AND PROPERTIES**

Matheus Souza Pimentel<sup>1</sup>, Laís Bomfim Borba<sup>1</sup>, Maria Elena Leyva<sup>1</sup>, Marília Sonego<sup>1</sup>, Mirian de Lourdes Noronha Motta Melo<sup>1</sup>; <sup>1</sup>Universidade Federal de Itajubá

**PO2.07.186 DEVELOPMENT OF CHITOSAN HYDROGELS WITH CARBON NANOTUBES FOR ADSORPTION OF COPPER IONS FROM INDUSTRIAL EFFLUENTS**

Camila Mendonça Dias<sup>1</sup>, Mayara de Freitas e Castro<sup>1</sup>, Júlia Audrem Gomes de Oliveira<sup>1</sup>, Lucas Barros Moço<sup>1</sup>, Djalma Souza<sup>1</sup>; <sup>1</sup>Universidade Estadual do Norte Fluminense Darcy Ribeiro

**PO2.07.187 EFFECT OF CORN ZEIN ON THE PHYSICAL PROPERTIES OF BEAN FLOUR FILMS**

Daiane Nogueira Nogueira<sup>1</sup>, Juliana Machado Latorres<sup>1</sup>, Natasha Spindola Marasca<sup>1</sup>, Vilásia Guimarães Martins<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande

**PO2.07.188 EFFECT OF CELLULOSE ACETATE ADDITION ON THE BARRIER PROPERTIES OF BROKEN BEAN FLOUR FILMS**

Daiane Nogueira Nogueira<sup>1</sup>, Juliana Machado Latorres<sup>1</sup>, Natasha Spindola Marasca<sup>1</sup>, Vilásia Guimarães Martins<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande

**PO2.07.190 STUDY OF POLYURETHANE FOAMS BASED ON WASTE COOKING OIL USING PYROLYSIS CARBON AS FILLER**

Guilherme Augusto Marques<sup>1</sup>, Henry Rodrigues Holland de Abreu<sup>1</sup>, Daniel Bastos de Rezende<sup>1</sup>, Camila Nunes Costa Corgozinho<sup>1</sup>, Renata Costa Silva Araújo<sup>1</sup>; <sup>1</sup>Universidade Federal de Minas Gerais

**PO2.07.192 SYNTHESIS OF A RENEWABLE MONOMER DERIVED FROM 10-UNDECENOIC ACID**

Juliana da Silva Zanatta<sup>1</sup>, Letícia Karina Hemkemaier Patricio<sup>1</sup>, Victor Lana Spiess<sup>1</sup>, Tamara Agner<sup>1</sup>, Claudia Sayer<sup>1</sup>, Pedro Henrique Hermes de Araújo<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO2.07.193 ENZYMATIC SYNTHESIS OF ALLYL-(METH)ACRYLATE MONOMERS FOR BIODEGRADABLE THIOL-ENE BASED POLYMERS**

João Vitor Chiella Santin<sup>1</sup>, Tamara Agner<sup>1</sup>, Cristian de Oliveira Romera<sup>1</sup>, Pedro Henrique Hermes de Araújo<sup>1</sup>, Claudia Sayer<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO2.07.195 THE INFLUENCE OF SALT (NaCl) ON THE PYROLYSIS OF POLYPROPYLENE AND MARINE LITTER (REAL WASTE)**

Yasmin Fialho Siqueira<sup>1</sup>, Débora Micheline Vaz de Miranda<sup>1</sup>, Larissa Leite de Almeida Carvalho<sup>1</sup>, Natasha Kelber Sitton<sup>1</sup>, Mateus Marques Barbio<sup>1</sup>, Laura Pires da Mata Costa<sup>1</sup>, Jamilly Andressa Santos Barros<sup>1</sup>, Luiz Eduardo Pizarro Borges<sup>2</sup>, José Carlos Costa da Silva Pinto<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Instituto Militar de Engenharia

**PO2.08.196 ENGINEERING HIGHLY POROUS 3D ARCHITECTURES BASED ON NANOCELLULOSE THROUGH IN VIVO BIOFABRICATION**

Ana Carolina de Aguiar<sup>1</sup>, Filipe Vargas Ferreira<sup>1</sup>, Liliâne Maria Ferrareso Lona<sup>2</sup>; <sup>1</sup>Faculdade de Engenharia Química da Unicamp, <sup>2</sup>Universidade Estadual de Campinas

**PO2.08.198 CONTROLLING THE DEGRADATION OF PLA/ZNO COMPOSITE THROUGH FILLER SURFACE MODIFICATION**

Daniel Aparecido Lopes Vieira da Cunha<sup>1</sup>, Lidiane Cristina Costa<sup>2,3</sup>, Luiz Antonio Pessan<sup>2</sup>, Daniela Becker<sup>4</sup>, Teresa Tromm Steffen<sup>4</sup>, Felipe Migliato Marega<sup>2,5</sup>, Larissa Aline Klok<sup>4</sup>; <sup>1</sup>Universidade Federal de São Carlos, <sup>2</sup>Univerdade Federal de São Carlos, <sup>3</sup>Centro de Caracterização e Desenvolvimento de Materiais, <sup>4</sup>Fundação Universidade do Estado de Santa Catarina, <sup>5</sup>Universidade Federal de São Carlo - Campus São Carlos

**PO2.08.201 CHITOSAN/ZN<sup>2+</sup>-CURCUMIN OR CU<sup>2+</sup>-CURCUMIN ANTIMICROBIAL MEMBRANES FOR PHOTODYNAMIC THERAPY**

Luana Aparecida Silvestre Braga<sup>1</sup>, Maria Elena Leyva González<sup>1</sup>, Adhimar Flávio Oliveira<sup>1</sup>; <sup>1</sup>Universidade Federal de Itajubá

**PO2.08.202 DEVELOPMENT OF BIOMATERIALS REINFORCED WITH BIOMIMETIC COMPONENTS AND SCAFFOLD PRODUCTION VIA 3D PRINTING APPLIED TO BONE TISSUE ENGINEERING**

Luan Vieira Brito de Campos<sup>1</sup>, Ana Lúcia Nazareth da Silva<sup>1</sup>, Alexandre Malta Rossi<sup>2</sup>, Lívia Rodrigues Menezes<sup>3</sup>, Eduardo La Marca da Silva<sup>3</sup>, Renan Henrique Gonçalves<sup>3</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Centro Brasileiro de Pesquisas Físicas, <sup>3</sup>Universidade Federal do Rio De Janeiro

**PO2.08.203 CERIUM OXIDE NANOPARTICLE DEPOSITION ON PLA/TCP SCAFFOLDS VIA ACTIVE SCREEN PLASMA**

Luis Guilherme Silva Rosa<sup>1</sup>, Daniela Becker<sup>1</sup>, Luis César Fontana<sup>1</sup>, Eduardo Henrique Backes<sup>2</sup>, Lidiane Cristina Costa<sup>2</sup>, Luiz Antonio Pessan<sup>2</sup>, Samarah Vargas Harb<sup>2</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina, <sup>2</sup>Univerdade Federal de São Carlos

**PO2.08.205 CONTROLLED RELEASE FROM POLY-3-HYDROXYALKANOATE MICROPARTICLES CONTAINING NANOMAGNETITE**

Mayara de Freitas e Castro<sup>1</sup>, Rubén Sánchez Rodríguez<sup>1</sup>, Jose Gregorio Gomez Cabrera<sup>2</sup>; <sup>1</sup>Universidade Estadual do Norte Fluminense Darcy Ribeiro, <sup>2</sup>Universidade de São Paulo

**PO2.08.206 TANNIN DERIVATIVES AS VENUE FOR NEW BIOMATERIALS**

Paulo César França da Câmara<sup>1</sup>, Rosângela de Carvalho Balaban<sup>1</sup>, Alessandro Francisco Martins<sup>2</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte, <sup>2</sup>Universidade Tecnológica Federal do Paraná

**PO2.08.207 DEVELOPMENT OF MEMBRANES BASED ON KAPPA-CARRAGEENAN AND MICROFIBRILLATED CELLULOSE**

Pedro Henrique de Sa Alves<sup>1</sup>, Clayton Fernandes de Souza<sup>1</sup>, Beatriz Luci Fernandes<sup>1</sup>; <sup>1</sup>Pontifícia Universidade Católica do Paraná

**PO2.08.208 DEVELOPMENT OF CRYOGEL SYSTEMS FOR BIOMEDICAL APPLICATIONS**

Pedro Henrique de Sa Alves<sup>1</sup>, Clayton Fernandes de Souza<sup>1</sup>, Beatriz Luci Fernandes<sup>1</sup>; <sup>1</sup>Pontifícia Universidade Católica do Paraná

**PO2.09.209 DEVELOPMENT OF BIOPOLYMERIC BEADS FOR APPLICATION IN THE CONTROLLED RELEASE PROCESS OF POTASSIUM IN THE SOIL**

Aline Fernandes de Oliveira<sup>1</sup>, Cristian Berto da Silveira<sup>1</sup>, Valdir Soldi<sup>2</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina, <sup>2</sup>Universidade Federal de Santa Catarina

**PO2.09.210 A NEW METHOD FOR DETERMINATION OF GLYCEROL IN BIODIESEL USING CELLULOSE MONOLITH SORPTIVE STIR BAR**

Pablo Henrique Silva Martins<sup>1</sup>, Poliana Ricci<sup>1</sup>, Rosana Maria Nascimento de Assunção<sup>1</sup>, Anizio Marcio de Faria<sup>1</sup>; <sup>1</sup>Universidade Federal de Uberlândia

**PO2.09.213 DEVELOPMENT OF CROSSLINKED BIOFILMS FOR APPLICATION IN CONTROLLED NUTRIENT RELEASE SYSTEMS**

Cristian Berto da Silveira<sup>1</sup>, Aline Fernandes de Oliveira<sup>1</sup>, Valdir Soldi<sup>2</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina, <sup>2</sup>Universidade Federal de Santa Catarina

**PO2.09.214 DEVELOPMENT OF BIODEGRADABLE MICROCAPSULES CONTAINING BACILLUS AMYLOLIQUEFACIENS BS01 FOR BIOLOGICAL CONTROL**

Éder Ramin de Oliveira<sup>1</sup>, Letícia Cuebas<sup>1</sup>, Iron Amoreli de Figueiredo Ribeiro<sup>2</sup>, Gilson Paulo Manfio<sup>2</sup>, Eduardo Roberto de Almeida Bernardo<sup>2</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC, <sup>2</sup>Agrivalle Brasil Indústria e Comércio de Produtos Agrícolas LTDA

**PO2.09.215 APPLICATION OF PAAM/CMC-NANOCLAY NANOCOMPOSITES TO IMPROVE THE SOIL PROPERTIES**

Uilian Gabaldi Yonezawa<sup>1</sup>, Erika T. Ganda<sup>1</sup>, Fabrício Cerizza Tanaka<sup>1</sup>, Marcia Regina de Moura Aouada<sup>2</sup>, Marcelo C. M. T Filho<sup>1</sup>, Fauze Ahmad Aouada<sup>1</sup>; <sup>1</sup>FEIS/UNESP, <sup>2</sup>Universidade Estadual Paulista

**PO2.09.216 PRODUCTION OF WOOD PLASTIC COMPOSITE USING EUCALYPTOS WITH VULCANIZED NATURAL RUBBER**

Felipe Reis Rodrigues<sup>1</sup>, Rodrigo Andraus Bispo<sup>1</sup>, Sérgio Augusto Mello da Silva<sup>1</sup>, Michael Jones Silva<sup>2</sup>, Diego Silva Melo<sup>1</sup>; <sup>1</sup>Universidade Estadual Paulista, <sup>2</sup>UNESP - Campus de Rosana

**PO2.09.217 GENERATION OF 3D PRINTING FILAMENTS FOR CONTROLLED RELEASE FERTILIZER UTILIZING PLA, UREA, AND ROCK POWDER**

Gabriella Neto Chagas<sup>1</sup>, Marcell do Nascimento da Conceição<sup>2</sup>, Roberto Carlos da Conceição Ribeiro<sup>2</sup>, Rossana Mara da Silva Moreira Thiré<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Centro de Tecnologia Mineral

**PO2.09.218 DEVELOPMENT OF POROUS FIBROIN MEMBRANES AND APPLICATION AS A POTENTIAL ADSORBENT FOR REMOVAL OF ORGANIC DYES**

Gabriel Yoshiaki Ottaiano<sup>1</sup>, Antonio Oliveira Santana Junior<sup>1</sup>, Caroline Bertagnolli<sup>2</sup>, Mariana Agostini de Moraes<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo, <sup>2</sup>Université de Strasbourg

**PO2.09.219 STUDY OF THE THERMAL STABILITY OF A GRANULATED ORGANOMINERAL FERTILIZER BASED ON LIGNOCELLULOSIC RESIDUE BY THERMOGRAVIMETRIC ANALYSIS**

Henrique de Araujo Sobreira<sup>1</sup>, Marcos Vinícius Ferreira<sup>1</sup>, Anizio Marcio de Faria<sup>1</sup>, Rosana Maria Nascimento de Assunção<sup>1</sup>; <sup>1</sup>Universidade Federal de Uberlândia

**PO2.09.220 PHYSICOCHEMICAL PERFORMANCE OF AN ECO-FRIENDLY AGRICULTURAL COMMERCIAL PRODUCT: EVALUATION OF PHEROGEN® INTERACTION ON SOY LEAVES UNDER SIMULATED ENVIRONMENTAL CONDITIONS**

Letícia Fonseca Balcewicz<sup>1</sup>, Heloíse Ribeiro de Barros<sup>2</sup>, Izabel Cristina Riegel Vidotti<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná, <sup>2</sup>Provivi do Brasil

**PO2.09.221 DEVELOPMENT OF STARCH/XANTHAN GUM/NANOEMULSION OF CINNAMON ESSENTIAL OIL BASED FILM FOR EDIBLE COATING**

Maíra de Andrade Peixoto<sup>1</sup>, Vanusca Dalosto Jahno<sup>1</sup>; <sup>1</sup>Universidade Feevale

**PO2.09.223 POLYANILINE COATING ON COPPER AND ITS CORROSION PROTECTION IN ACID MEDIUM**

Pedro José de Souza Medeiros<sup>1</sup>, Carla Dalmolin<sup>2</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina, <sup>2</sup>Fundação Universidade do Estado de Santa Catarina

**PO2.10.227 CIRCULAR ECONOMY TRENDS ABOUT THE REUSE OF SYNTHETIC FIBER WASTE FROM THE OIL INDUSTRY**

Daniela Hurtado Tejada<sup>1</sup>, Thaiane Nolasco da Silva<sup>2</sup>, Ana Maria Furtado de Sousa<sup>2</sup>, Ana Lúcia Nazareth da Silva<sup>1</sup>, Suzana Borschiver<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro, <sup>2</sup>Universidade do Estado do Rio de Janeiro

**PO2.10.229 USE OF ASSOCIATION RULES FOR EVALUATION OF STRESS CRACKING IN POLYMERS**

Lucas Miguel Hallmann<sup>1</sup>, Edson Luiz Francisquetti<sup>2</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

**WEDNESDAY, NOVEMBER 01****Session PO3(16:40 - 18:10) - poster area****PO3.01.4 SYNTHESIS OF HYDROGELS BASED ON PRODUCTS OBTAINED FROM RENEWABLE SOURCES APPLIED ON THE REMOVAL OF CRYSTAL VIOLET DYE.**

Bibiana Bitelo<sup>1</sup>, César Liberato Petzhold<sup>1</sup>, Douglas Gamba<sup>1</sup>, Tales da Silva Daitx<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO3.01.5 PVOH HYDROGELS CROSSLINKED BY ORGANIC ACIDS. PART I: SWELLING-KINETICS STUDY**

Dione Pereira de Castro<sup>1</sup>, Vanessa Zimmer Kieffer<sup>1</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO3.01.6 PVOH HYDROGELS CROSSLINKED BY ORGANIC ACIDS. PART II: KINETICS OF CONTROLLED DYE RELEASE**

Dione Pereira de Castro<sup>1</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO3.01.7 POLY(N-VINYLCAPROLACTAM) POLYMERIZATION BY ULTRAVIOLET RADIATION**

Djalma Alves de Oliveira<sup>1</sup>, Grazielle Rozendo de Cerqueira<sup>1</sup>, Tulio de Lima Pedrosa<sup>1</sup>, Renato Evangelista de Araujo<sup>1</sup>, Michelle Félix de Andrade<sup>1</sup>, Yêda Medeiros Bastos de Almeida<sup>1</sup>, Carolina Lipparelli Morelli<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

**PO3.01.8 EVALUATION OF STARCH PROCESSING STEPS WITH ADDED CITRIC ACID**

Ítalo Rocha Coura<sup>1</sup>, Patrícia Santiago de Oliveira Patrício<sup>1</sup>; <sup>1</sup>Centro Federal de Educação Tecnológica de Minas Gerais

**PO3.01.9 SYNTHESIS AND PHYSICOCHEMICAL CHARACTERIZATION OF STYRENE/LIMONENE/CASTOR OIL COPOLYMER OBTAINED BY RADICAL POLYMERIZATION**

Paulo Rodrigo Stival Bittencourt<sup>1</sup>, Enoar Nassib Dipp<sup>1</sup>, Alex Sanches Torquato<sup>1</sup>, Ivan José Silva Junior<sup>1</sup>, Marília Gabriela Stolben de Souza<sup>1</sup>, Kassia Emanuelle Bortoloso<sup>1</sup>; <sup>1</sup>Universidade Tecnológica Federal do Paraná

**PO3.01.14 EFFECT OF PHENOLIC AND HYDROXYLAMINE-BASED ADDITIVES ON THE STABILIZATION OF POLYPROPYLENE EXPOSED TO UV-C RADIATION**

Marcos Vinícius Basaglia<sup>1</sup>, Lucas Henrique Staffa<sup>1</sup>, Jessica Caroline Ferreira Gimenez<sup>1</sup>, Sandra Andrea Cruz<sup>1</sup>, Manoel Gustavo Petrucelli Homem<sup>1</sup>, Sílvia Helena Prado Bettini<sup>1</sup>; <sup>1</sup>Universidade Federal de São Carlos

**PO3.01.15 EVALUATION OF THE EFFECT OF SYNTHESIS VARIABLES ON THE MORPHOLOGICAL CHARACTERISTICS OF PUF/ENB MICROCAPSULES USING FRACTIONAL DESIGN.**

Maria Paula de Carvalho Freire<sup>1</sup>, Ygor Matheus Pereira de Paula<sup>1</sup>, Ana Leticia Fernandes dos Santos<sup>1</sup>, José Daniel Diniz Melo<sup>1</sup>, Maria Carolina Burgos Costa<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte

**PO3.01.16 THERMAL DEGRADATION KINETICS OF TWO BRAZILIAN WOOD SPECIES: PART 2. SOLID-STATE REACTIONS**

Matheus de Prá Andrade<sup>1</sup>, Matheus Poletto<sup>1</sup>, Ademir José Zattera<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul

**PO3.01.17 THERMAL DEGRADATION KINETICS OF TWO BRAZILIAN WOOD SPECIES: PART 1. THERMOGRAVIMETRY AND FWO METHOD**

Matheus de Prá Andrade<sup>1</sup>, Matheus Poletto<sup>1</sup>, Ademir José Zattera<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul

**PO3.01.18 FULLY BIO-BASED NOVOLAC RESINS FROM AGROINDUSTRIAL RESIDUES FOR APPLICATION IN ANTICORROSIVE COATINGS**

Sara Jéssica Marciano<sup>1</sup>, Maria A. C. Monteiro<sup>1</sup>, Maycon M. Vasconcelos<sup>1</sup>, Walney Silva Araujo<sup>1</sup>, Selma Elaine Mazzetto<sup>1</sup>, Diego Lomonaco<sup>1</sup>; <sup>1</sup>Universidade Federal do Ceará

**PO3.01.19 LUMINESCENT PROPERTIES OF THE EU 3+ COMPLEX IN POLYURETHANE FOAM**

Taissa Tavares de Deus<sup>1</sup>, Samanta Teixeira Medeiros<sup>1</sup>, Mariana Passarin<sup>1</sup>, Juliana Regina Kloss<sup>1</sup>, Renata Danielle Adati<sup>1</sup>; <sup>1</sup>Universidade Tecnológica Federal do Paraná

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Anômore Ariane Rochido dos Santos Cotta<sup>1</sup>; <sup>1</sup>Universidade Federal de Lavras

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Beatriz Luize de Souza<sup>1</sup>, Wagner Mauricio Pachekoski<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO3.02.24 NATURALLY LM PECTINS FROM CHARDONNAY GRAPE POMACE EXTRACTED UNDER DIFFERENT CONDITIONS FORM GELS BY ADDITION OF CA<sup>2+</sup>**

Cristiane Colodel<sup>1</sup>, Carmen Lucia de Oliveira Petkowicz<sup>2</sup>; <sup>1</sup>Universidade Estadual de Ponta Grossa, <sup>2</sup>Universidade Federal do Paraná

**PO3.02.25 EVALUATION OF JUTE FIBRE IN REACTION WITH FURFURYL ALCOHOL TOWARD PROSPECTIVE PREPREG APPLICATION**

Cristiane da Silva Fonseca<sup>1</sup>, Andrey Pereira Acosta<sup>1</sup>, Rafael de Avila Delucis<sup>2</sup>, Sandro Campos Amico<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Universidade Federal de Pelotas

**PO3.02.27 STRESS CRACKING EM RESINA EPÓXI**

Emanuela Santos Silva<sup>1</sup>, Ana Paula Cysne Barbosa<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte

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João Augusto Osório Brandão<sup>1</sup>, Pedro Tonom Martin<sup>1</sup>, Edson Luiz Francisquetti<sup>2</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

**PO3.02.29 EVALUATION OF THE EFFECTS OF A SUPERABSORBENT POLYMER ON THE GRANULOMETRIC AND CHEMICAL DISTRIBUTIONS OF AN IRON ORE**

Katia Monteiro Novack<sup>1</sup>, Claudio Gouvêa dos Santos<sup>1</sup>, Mariana Babilone De Souza Ferreira<sup>2</sup>; <sup>1</sup>Universidade Federal de Ouro Preto, <sup>2</sup>Programa de Pós-Graduação em Engenharia de Materiais

**PO3.02.30 ADHESION STUDY OF PRINTING INKS ON ANIMAL FEED MULTILAYER PACKAGING MADE WITH MIXTURE OF PETROCHEMICAL LDPE AND GREEN LDPE IN THE OUTER LAYER**

Kelin Carvalho Hau<sup>1</sup>, Matheus Vinicius Gregory Zimmermann<sup>2</sup>, Noeli Sellin<sup>1</sup>; <sup>1</sup>Universidade da Região de Joinville, <sup>2</sup>Universidade do Extremo Sul Catarinense

**PO3.02.31 DYNAMIC MECHANICAL CHARACTERISTICS OF RIGID POLYURETHANE FOAMS DERIVED FROM KRAFT LIGNIN**

Kelvin Techera Barbosa<sup>1</sup>, Silvia Helena Fuentes da Silva<sup>2</sup>, Darci Alberto Gatto<sup>2</sup>, Rafael Beltrame<sup>2</sup>, Rafael de Avila Delucis<sup>2</sup>, Sandro Campos Amico<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Universidade Federal de Pelotas

**PO3.02.32 AGAR CHARACTERIZATION TECHNIQUES: A VERSATILE POLYSACCHARIDE**

Marcia Parente Melo da Costa<sup>1</sup>, Luiz Paulo Botelho Barbosa<sup>1</sup>, Ivana Lourenço de Mello Ferreira<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO3.02.33 DEVELOPMENT OF NON-STICK SURFACES FOR RIGID PACKAGING**

Marina Kauling de Almeida<sup>1</sup>, Matheus Vinicius Gregory Zimmermann<sup>1</sup>; <sup>1</sup>Universidade do Extremo Sul Catarinense

**PO3.02.34 COMPARISON BETWEEN THE RESULTS OF DIGITAL IMAGE CORRELATION (DIC) AND THE STRAIN GAUGES IN A SPLIT HOPKINSON PRESSURE BAR (SHPB) TEST**

Matheus da Silva Domingos<sup>1</sup>, Iana C Carvalho<sup>1</sup>, Rafael R Dias<sup>1</sup>, Iaci Miranda Pereira<sup>1</sup>; <sup>1</sup>Centro Tecnológico do Exército

**PO3.02.37 PRELIMINARY STUDY OF THE EXTRACTION OF WATER-SOLUBLE POLYSACCHARIDES FROM MACAW PALM**

Ludmyla Barbosa Lacerda<sup>1</sup>, Marcela Oliveira Ferreira<sup>1</sup>, Nívia do Nascimento Marques<sup>2</sup>, Rosangela de Carvalho Balaban<sup>2</sup>, Ana Maria da Silva Maia<sup>1</sup>; <sup>1</sup>Universidade Federal do Tocantins, <sup>2</sup>Universidade Federal do Rio Grande do Norte

**PO3.02.38 PHYSICOCHEMICAL EVALUATION OF OAT SHELLS BY DIFFERENT CHARACTERIZATION TECHNIQUES**

Raphael Valle Ferreira<sup>1</sup>, Ivana Lourenço de Mello Ferreira<sup>1</sup>, Marcia Parente Melo da Costa<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO3.02.39 EFFECT OF YERBA MATE EXTRACT AND MALIC ACID ON THE PHYSICAL PROPERTIES OF POTATO STARCH FILMS**

Magali Canton Casagrande<sup>1</sup>, Renan Borges da Silva<sup>1</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul

**PO3.03.40 EFFECT OF THE GRAPHENE NANOPATELETS ON FLEXIBLE PVC**

Daniela Maria Cecatto<sup>1</sup>, Tarcisio Sanson Sene<sup>2</sup>, Lilian Vanessa Rossa Beltrami<sup>1</sup>, Ademir José Zattera<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>GRENDENE S.A.

**PO3.03.41 DEVELOPMENT OF POLYMERIC FILMS OF POLYETHYLENE MODIFIED BY CLAY NANOPARTICLES AND GRAPHENE NANOPANELS FOR APPLICATION IN FOOD PACKAGING**

Renata Gonçalves da Conceição<sup>1</sup>, Cleide Borsoi<sup>2</sup>, Lilian Vanessa Rossa Beltrami<sup>1</sup>, Ademir José Zattera<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>Centro Universitário Univates

**PO3.03.42 INFLUENCE OF GRAPHITE AND GRAPHENE INCORPORATION IN POLYURETHANE FOAMS OIL SORBENTS**

Tiago Mari<sup>1</sup>, Bruna Rossi Fenner<sup>1</sup>, Matheus Vinicius Gregory Zimmermann<sup>2</sup>, Camila Baldasso<sup>1</sup>, Ademir José Zattera<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>Universidade do Extremo Sul Catarinense

**PO3.03.43 INFLUENCE OF THE ADDITION OF MONTMORILLONITE CLAY NANOFILLERS ON THE PROPERTIES OF ACRYLIC RESIN COMPOSITES APPLIED TO THE DEVELOPMENT OF OCCLUSAL PLATES BY ADDITIVE MANUFACTURING**

Vanessa Bueno Pereira<sup>1</sup>, Lilian Vanessa Rossa Beltrami<sup>1</sup>, Diego Piazza<sup>1</sup>, Thiago de Oliveira Gamba<sup>1</sup>, Ademir José Zattera<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul

**PO3.03.44 EFFECT OF THE INCORPORATION OF MODIFIED SILICA IN A COMPOSITE WITH NANOFIBRILLATED CELLULOSE**

Adriana dos Anjos Silva<sup>1,2</sup>, Veronica Maria de Araújo Calado<sup>3</sup>, Bluma Guenther Soares<sup>3</sup>; <sup>1</sup>Escola de Química/UFRJ, <sup>2</sup>Universidade Federal do Rio De Janeiro, <sup>3</sup>Universidade Federal do Rio de Janeiro

**PO3.03.46 EVALUATION OF THE ANTICORROSION POTENTIAL OF POLYMER NANOCOMPOSITE COATINGS WITH REDUCED GRAPHENE OXIDE FOR THE OIL INDUSTRY**

Ana Leticia Fernandes dos Santos<sup>1</sup>, Maria Paula de Carvalho Freire<sup>1</sup>, Ygor Matheus Pereira de Paula<sup>1</sup>, Maria Carolina Burgos Costa<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Norte

**PO3.03.47 HYBRID MATERIALS BASED ON CHITOSAN/MAGNETITE/SILVER NANOPARTICLES FOR ADSORPTION AND DEGRADATION OF DYES.**

Ana Livia de Andrade<sup>1</sup>, Andressa Luíza Ratajk<sup>1</sup>, Larissa Nardini Carli<sup>1</sup>, Cristiano da Silva Teixeira<sup>1</sup>, Ismael Casagrande Bellettini<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO3.03.48 STUDY OF A SIPN APPLICABILITY AS A SOLID ELECTROLYTE FOR FUEL CELLS**

Julia da Silva Menezes<sup>1</sup>, Veronica Maria de Araújo Calado<sup>1</sup>, Ana Maria Rocco<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO3.03.49 NANOPARTICLES FILLED WITH VETIVER ESSENTIAL OIL SYNTHESIZED BY NANOPRECIPITATION AND IONIC GELATION METHODS FOR DERMOCOSMETIC**

Andressa Carvalho Câmara Januário<sup>1</sup>, Gisele Cristina Valle Iulianelli<sup>2</sup>; <sup>1</sup>Instituto de Macromoléculas Professora Eloísa Mano, <sup>2</sup>Universidade Federal do Rio de Janeiro

**PO3.03.50 POLI(LACTIC ACID-CO-GLYCOLIC ACID)/POLY(VINYL ALCOHOL) CORE-SHELL ELECTROSPUN FIBERS**

Thalles Rafael Silva Rêgo<sup>1</sup>, Anna Leticia Martinez Martinez Toledo<sup>1</sup>, Marcos Lopes Dias<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO3.03.51 IMPACT BEHAVIOR OF UNSATURATED POLYESTER RESIN TOUGHENED BY CELLULOSE NANOCRYSTALS**

Arthur Behenck Aramburu<sup>1</sup>, Rafael de Avila Delucis<sup>2</sup>, Sandro Campos Amico<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Universidade Federal de Pelotas

**PO3.03.52 DEVELOPMENT OF ELECTROPUN MEMBRANES OF TPU/MWCNTS FOR APPLICATION IN WEARABLE SENSORS FOR HUMAN MOTION MONITORING**

Bruna Caldas de Sousa<sup>1</sup>, Claudia Merlini<sup>1</sup>, Johnny De Nardi Martins<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO3.03.53 GRAPHENE OXIDE DEPOSITION ON METALLIC AND POLYMERIC SUBSTRATE VIA ELECTROPHORETIC DEPOSITION**

Bruna Segat<sup>1</sup>, Luis Guilherme Silva Rosa<sup>1</sup>, Daniela Becker<sup>1</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina

**PO3.03.57 POLY(LACTIC ACID) (PLA)/POE-G-GMA NANOCOMPOSITES REINFORCED WITH MWCNT FOR ANTISTATIC APPLICATION**

Edcleide Maria Araújo<sup>1</sup>, Carlos Bruno Barreto Luna<sup>1</sup>, Eduardo da Silva Barbosa Ferreira<sup>1</sup>, Edson Antônio dos Santos Filho<sup>1</sup>, Renate Wellen<sup>2</sup>; <sup>1</sup>Universidade Federal de Campina Grande, <sup>2</sup>Universidade Federal da Paraíba

**PO3.03.59 EVALUATION OF THE INFLUENCE OF NANOPARTICLE ADDITIVES ON THE MECHANICAL PROPERTIES OF EPOXY ADHESIVES**

Elton José Sehnem<sup>1</sup>, Rafael Beck<sup>2</sup>, Daniela Becker<sup>2</sup>, Ricardo de Medeiros<sup>2</sup>; <sup>1</sup>Universidade do Estado de Santa Catarina, <sup>2</sup>Fundação Universidade do Estado de Santa Catarina

**PO3.03.60 EVALUATION OF B-PHASE ENHANCEMENT OF PVDF-TRFE NANOCOMPOSITES WITH GRAPHENE OXIDE PROCESSED BY EXTRUSION**

Fabio Elias Jorge<sup>1</sup>, Maria de Fátima Vieira Marques<sup>1</sup>, Thiago Brito de Abreu<sup>2</sup>; <sup>1</sup>Instituto de Macromoléculas Professora Eloísa Mano, <sup>2</sup>Universidade Federal do Rio de Janeiro

**PO3.03.63 EVALUATION OF THERMAL, RHEOLOGICAL AND MECHANICAL PROPERTIES OF POLYPROPYLENE COMPOSITES AND GRAPHENE NANOPATELETS WITH DIFFERENT NUMBER OF LAYERS**

Giovani Bruno Berti<sup>1</sup>, Diego Piazza<sup>1</sup>, Bruna Farias de Bortoli<sup>2</sup>, Gabriel Gonem de Lima<sup>2</sup>, Monique C.R. de Camargo<sup>2</sup>, Rodrigo Denizarte de Oliveira Polkowski<sup>2</sup>, Ricardo Ferreira Cavalcanti de Albuquerque<sup>2</sup>, Rosmary Nichele Brandalise<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>Ford Motor Company

**PO3.03.66 RHEOLOGICAL BEHAVIOR OF MELALEUCA OIL PICKERING EMULSIONS WITH CELLULOSE NANOFIBRILS**

Greiciele Da Silva Ferreira<sup>1</sup>, Daniel José da Silva<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO3.03.67 MAIN PROCESS PARAMETERS AND ANTIVIRAL PROPERTIES OF MELALEUCA OIL PICKERING EMULSION STABILIZED WITH NANOCELLULOSE**

Greiciele Da Silva Ferreira<sup>1</sup>, Daniel José da Silva<sup>2,3</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC, <sup>2</sup>Universidade de São Paulo, <sup>3</sup>Universidade do ABC

**PO3.03.71 PLA/HNT NANOCOMPOSITES: INFLUENCE OF HNT CONTENT ON THERMAL, RHEOLOGICAL AND MECHANICAL PROPERTIES**

Pedro Henrique da Silva Vieira<sup>1</sup>, Juliano Marini<sup>1</sup>; <sup>1</sup>Univerdade Federal de São Carlos

**PO3.03.72 TITANIUM DIOXIDE NANOPARTICLES OBTAINED BY GREEN ROUTE AS AN UV-BLOCKER ADDITIVE IN POLYMERS**

Laís Bomfim Borba<sup>1</sup>, Maria Elena Leyva<sup>1</sup>, Estácio Tavares Wanderley Neto<sup>1</sup>; <sup>1</sup>Universidade Federal de Itajubá

**PO3.03.74 SYNTHESIS AND PHYSICOCHEMICAL CHARACTERIZATION OF NANOFIBERS FROM BIOCELLULOSE WASTE**

Kely Silveira Bonfim<sup>1</sup>, Adhemar Watanuki<sup>1</sup>, Renan da Silva Fernandes<sup>1</sup>, Fauze Ahmad Aouada<sup>1</sup>, Marcia Regina de Moura Aouada<sup>2,1</sup>; <sup>1</sup>FEIS/UNESP, <sup>2</sup>Universidade Estadual Paulista

**PO3.03.76 DEVELOPMENT OF MULTIFUNCTIONAL ELECTROSPUN POLYMERIC MEMBRANES FOR FACE MASKS: INCORPORATION OF ZINC OXIDE NANOPARTICLES**

Matheus Campos Hemkemaier<sup>1</sup>, Claudia Merlini<sup>1</sup>, Cristiano Binder<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO3.03.79 FUNCTIONALIZATION OF CLAY NANOPARTICLES BY PLASMA FOR APPLICATION IN ACTIVE PACKAGING**

Pamela Xavier Mendoza<sup>1</sup>, Larissa Nardini Carli<sup>1</sup>, Pâmela Rosa Oliveira<sup>1</sup>, Renata Cerruti da Costa<sup>1</sup>, Cesar Aguzzoli<sup>2</sup>, Janaina da Silva Crespo<sup>2</sup>; <sup>1</sup>Universidade Federal de Santa Catarina, <sup>2</sup>Universidade de Caxias do Sul

**PO3.03.80 NANOCELLULOSE MODIFICATION USING MODIFIED-DTPA TO REMOVE METALLIC IONS INTO WATER**

Paulo Henrique Camani<sup>1</sup>, Rodrigo O. Lourenço<sup>1</sup>, Talles Barcelos da Costa<sup>1</sup>, Derval dos Santos Rosa<sup>1</sup>; <sup>1</sup>Universidade Federal do ABC

**PO3.03.81 EFFECTS OF SINGLE-WALLED CARBON NANOTUBE ADDITION ON THE MECHANICAL PROPERTIES OF CARBON FIBER STRUCTURAL COMPOSITE**

Rafael Leal da Costa<sup>1</sup>, Gerson Marinucci<sup>1</sup>, Leonardo Gondim de Andrade e Silva<sup>1</sup>; <sup>1</sup>Instituto de Pesquisas Energéticas e Nucleares

**PO3.03.82 ECOLOGICAL PANELS PRODUCED FROM AÇAÍ FIBER AND COPPER NANOPARTICLES**

Antônio de Lima Mesquita<sup>1</sup>, José Costa de Macêdo Neto<sup>1</sup>, Julio Simonetti Martins Junior<sup>1</sup>, Renato Moreira Teixeira Junior<sup>1</sup>, Zaqueu Dias de Freitas<sup>2</sup>, Nubia Mireya Garzón Barrero<sup>2</sup>; <sup>1</sup>Universidade do Estado do Amazonas, <sup>2</sup>Universidade de São Paulo

**PO3.03.83 EVALUATION OF THE DEGRADATION OF POLY(ETHYLENE TEREPHTHALATE) WITH THE ADDITION OF CHAIN EXTENDERS AND GRAPHENE NANOPLATELETS AFTER PROCESSING**

Daiane Torani<sup>1</sup>, Rosmary Nichele Brandalise<sup>1</sup>, Diego Piazza<sup>1</sup>, Nathan Rianny Valério Albino<sup>2</sup>, Renato Gonçalves Fialho Neto<sup>2</sup>, Raphael Borges Magalhães Bergamini<sup>2</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>Cetiqt

**PO3.03.84 MONODISPERSE NANOPARTICLES PREPARED BY MICROEMULSION POLYMERIZATION**

Juliete Silva Neves<sup>1</sup>, Sonia Faria Zawadzki<sup>1</sup>, Tainara Luana de Souza<sup>1</sup>; <sup>1</sup>Universidade Federal do Paraná

**PO3.03.85 PREPARATION AND CHARACTERIZATION OF NANOSTRUCTURED HYDROGELS BASED ON KAPPA-CARRAGENAN AND CLOISITE-NA+**

Thamyres Graco Soares<sup>1</sup>, Marcia Parente Melo da Costa<sup>1</sup>, Ivana Lourenço de Mello Ferreira<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO3.04.87 SYNTHESIS, SPECTROSCOPIC AND THERMAL STUDY OF NETWORKS CONTAINING POLY(STYRENE-CO-MALEIC ANHYDRIDE)**

Ana Maria Rocco<sup>1</sup>, Anna Danielli da Fonseca Ferreira<sup>1</sup>, Luis Henrique Correia Lacerda<sup>1</sup>, Beatriz Diniz de Azevedo Ribeiro<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio de Janeiro

**PO3.04.88 EFFECTS OF LONG-TERM HYGROTHERMAL AGING ON THE MECHANICAL BEHAVIOR OF CARBON FIBER/EPOXY COMPOSITE**

Andréa Karoline Silva<sup>1,2</sup>, Tanila Penteado De Faria Gonzales Leal<sup>2</sup>, Silvana Navarro Cassu<sup>1,3</sup>; <sup>1</sup>Instituto Tecnológico de Aeronáutica, <sup>2</sup>EMBRAER S.A, <sup>3</sup>Instituto de Aeronáutica e Espaço

### **PO3.04.89 THERMAL AND MECHANICAL PROPERTIES OF ARAMID FIBER REINFORCED POLYPROPYLENE**

Andressa Antunes Carneiro<sup>1</sup>, Daiane Romanzini<sup>2</sup>, Vagner Grison<sup>1</sup>, Ademir José Zattera<sup>1</sup>, Iaci Miranda Pereira<sup>3</sup>, Rafael Rodrigues Dias<sup>3</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul, <sup>3</sup>Centro Tecnológico do Exército

### **PO3.04.90 INFLUENCE OF NATURAL EXPOSURE ON CASTOR OIL BASED POLYURETHANE REINFORCED WITH MACADAMIA RESIDUES**

Bianca Andrade Rangel Da Silva<sup>1</sup>, Daniella Regina Mulinari<sup>1</sup>, Lorena Corrêa de Souza Balieirp<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

### **PO3.04.92 BRAZIL NUT BUR PARTICLES REINFORCED POLYPROPYLENE COMPOSITE**

Bruno Mello de Freitas<sup>1</sup>, Jamisdean Sales dos Santos<sup>2</sup>, José Costa de Macêdo Neto<sup>2</sup>, Gabrieli Estefani Andriotti<sup>1</sup>, Jean Valdir Uchôa Teixeira<sup>1</sup>, Paulo Noronha Lisboa-Filho<sup>1</sup>; <sup>1</sup>Universidade Estadual Paulista, <sup>2</sup>Universidade do Estado do Amazonas

### **PO3.04.93 COMPATIBILITY BETWEEN PBAT AND SWEET POTATO STARCH: INFLUENCE OF THE COMPATIBILIZING AGENT**

Michelle Félix de Andrade<sup>1</sup>, Cecilâne Regina Dioclecia da Silva Ribeiro de Assis<sup>1</sup>, Grazielle Rozendo de Cerqueira<sup>1</sup>, Viviane Fonseca Caetano<sup>1</sup>, Djalma Alves de Oliveira<sup>1</sup>, Carolina Lipparelli Morelli<sup>1</sup>, Yêda Medeiros Bastos de Almeida<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco

### **PO3.04.94 COMPARISON BETWEEN LLDPE COMPOSITES CONTAINING RESIDUES OF BACURI MESOCARP (BM) AND BACURI SEED (BS)**

Cléverson Fernandes Senra Gabriel<sup>1</sup>, Gabriela Moura dos Santos<sup>1</sup>, Marcia Gomes de Oliveira<sup>1</sup>; <sup>1</sup>Instituto Nacional de Tecnologia

### **PO3.04.95 PBAT BIOCOMPOSITE WITH BACURI MESOCARP (BM) RESIDUE**

Cléverson Fernandes Senra Gabriel<sup>1</sup>, Gabriela Moura dos Santos<sup>1</sup>, Alene Dutra Nascimento<sup>2,1</sup>, Marcia Gomes de Oliveira<sup>1</sup>; <sup>1</sup>Instituto Nacional de Tecnologia, <sup>2</sup>Universidade do Estado do Rio de Janeiro

### **PO3.04.96 MORPHOLOGY AND MECHANICAL PROPERTIES OF A COMPOSITE FOAM BASED ON CASSAVA STARCH, CLAY AND RAMIE FIBERS**

Nayara Taíne Bohnenberger<sup>1</sup>, Gabriela Pozzebon<sup>1</sup>, Mara Zeni de Andrade<sup>1</sup>, Ana Paula Bilck<sup>1</sup>, Edson Luiz Francisquetti<sup>1</sup>, Daiane Romanzini<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

### **PO3.04.97 CHEMICAL AND THERMAL EVALUATION OF A COMPOSITE FOAM BASED ON CASSAVA STARCH, CLAY AND RAMIE FIBERS**

Nayara Taíne Bohnenberger<sup>1</sup>, Gabriela Pozzebon<sup>1</sup>, Mara Zeni de Andrade<sup>1</sup>, Ana Paula Bilck<sup>1</sup>, Edson Luiz Francisquetti<sup>1</sup>, Daiane Romanzini<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

### **PO3.04.99 PAAM/RHA HYDROGELS AS AN INTERNAL CURING AGENT IN MORTARS AND CONCRETES**

Edson Araujo de Almeida<sup>1</sup>, Fábio Rodrigo Kruger<sup>2</sup>, Regiane da Silva Gonzalez<sup>2</sup>, Edvani Curti Muniz<sup>1,3</sup>; <sup>1</sup>Universidade Estadual de Maringá, <sup>2</sup>Universidade Tecnológica Federal do Paraná, <sup>3</sup>Universidade Federal do Piauí

### **PO3.04.100 FOAM COMPOSITES REINFORCED WITH MDF POWDER: EFFECTS ON MECHANICAL PROPERTIES AND SUSTAINABILITY**

Edson Luiz Francisquetti<sup>1</sup>, Mara Zeni de Andrade<sup>1</sup>, Lizandro Manzano<sup>2</sup>, Flavia Costa<sup>2</sup>, Tiago Fachini<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Amazonas

**PO3.04.103 FLOW BEHAVIOR AND DEGRADATION OF HIGH DENSITY POLYETHYLENE (HDPE) AND ULTRA HIGH MOLAR MASS POLYETHYLENE (UHMWPE) BLENDS**

Fabiana de Carvalho Fim<sup>1</sup>, Jullyani Mendes Da Silva<sup>1</sup>, Gabriel Cavalcante Gomes Duarte<sup>1</sup>, Mariana de Oliveira Silva<sup>1</sup>, Luziany Gomes da Nóbrega, Ryan Ferreira dos Santos<sup>1</sup>, Lucineide Balbino Silva<sup>1</sup>; <sup>1</sup>Universidade Federal da Paraíba

**PO3.04.104 POLY(BUTYLENE-ADIPATE-CO-TEREFTALATE) BIOCOSCOMPOSITES WITH CORN STRAW FOR FOOD PACKAGING**

Fernanda Vieira Amorim<sup>1</sup>, MÁRCIA RAMOS Luiz<sup>2</sup>, Carolina Lipparelli Morelli<sup>1</sup>, Mariana Alves Henrique<sup>1</sup>, Glória Maria Vinhas<sup>1</sup>, Yêda Medeiros Bastos de Almeida <sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco, <sup>2</sup>Universidade Estadual da Paraíba

**PO3.04.105 SYNTHESIS AND CHARACTERIZATION OF BACTERIAL CELLULOSE MEMBRANES INCORPORATED WITH ZINC OR SILVER NANOPARTICLES**

Bruna Segat<sup>1</sup>, Izabel Cristina Nývák<sup>2</sup>, Geasi Lucas Martins<sup>2</sup>, Michele Cristina Formolo Garcia<sup>2</sup>, Karina Cesca<sup>3</sup>, Denise Abatti Kasper Silva<sup>2</sup>, Andréa L.D.S Schneider<sup>2</sup>, Ana Paula Testa Pezzin<sup>2</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina, <sup>2</sup>Universidade da Região de Joinville, <sup>3</sup>Universidade Federal de Santa Catarina

**PO3.04.106 EXPANDED GRAPHITE AS REINFORCEMENT OF POLYPROPYLENE**

Carolina Lipparelli Morelli<sup>1</sup>, Arthur Biagiotti<sup>2</sup>, Cassiano Marcos Noronha Romagnoli<sup>2</sup>, Dielly Cristine de Oliveira Araujo<sup>2</sup>, Luis FELIPE COSTA<sup>2</sup>, Grazielle Rozendo de Cerqueira<sup>1</sup>; <sup>1</sup>Universidade Federal de Pernambuco, <sup>2</sup>Universidade Federal de Itajubá

**PO3.04.108 SELF-HEALABLE MULTI-NETWORK HYDROGELS OF POLY(ACRYLIC ACID)/POLY(VINYL ALCOHOL) AND FE<sup>3+</sup> IONS: DESIGN, CHARACTERIZATION AND SELECTIVE ADSORPTION OF CATIONIC DYE**

Henrique Peres da Mota<sup>1</sup>, Rafael Fonseca Neves Quadrado<sup>1</sup>, André Ricardo Fajardo<sup>1</sup>; <sup>1</sup>Universidade Federal de Pelotas

**PO3.04.111 MECHANICAL BEHAVIOR AND GEL CONTENT OF POLY(VINYLDENE FLUORIDE)/ THERMOPLASTIC POLYURETHANE BLENDS DYNAMICALLY CROSS-LINKED WITH AMINE.**

João Victor Mesquita Salustiano<sup>1</sup>, Johnny De Nardi Martins<sup>1</sup>, Arthur Braun<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO3.04.113 EVALUATION OF WEAR RESISTANCE OF LLDPE/UHMWPE BLENDS**

Pollyana da Silva Melo Cardoso<sup>1</sup>, Joyce Batista Azevedo<sup>2</sup>, Josiane Dantas Viana Barbosa<sup>1</sup>, Marcelo Massayoshi Ueki<sup>3</sup>; <sup>1</sup>Faculdade de Tecnologia Senai Cimatec, <sup>2</sup>Universidade Federal da Bahia, <sup>3</sup>Universidade Federal de Sergipe

**PO3.04.114 STARCH-BASED COMPOSITE HYDROGEL ENHANCED BY ACTIVATED CARBON FROM THE BANANA PEEL: MORPHOLOGICAL, CHEMICAL AND THERMAL PROPERTIES**

Lana Siqueira Maia<sup>1</sup>, Paulo Henrique Fernandes Pereira<sup>1</sup>, Talles Barcelos da Costa<sup>2</sup>, Derval dos Santos Rosa<sup>2</sup>, Daniella Regina Mulinari<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro, <sup>2</sup>Universidade Federal do ABC

**PO3.04.115 HYDROPHOBIC AND FLEXIBLE POLYURETHANE FOAMS REINFORCED WITH MICROCRYSTALLINE CELLULOSE FIBERS FOR OIL SPILL CLEAN UP**

Lara Vasconcellos Ponsoni<sup>1</sup>, Matheus Vinicius Gregory Zimmermann<sup>1</sup>, Marina Kauling de Almeida<sup>1</sup>, Ademir José Zattera<sup>2</sup>, Ruth Marlene Campomanes Santana<sup>3</sup>; <sup>1</sup>Universidade do Extremo Sul Catarinense, <sup>2</sup>Universidade de Caxias do Sul, <sup>3</sup>Universidade Federal do Rio Grande do Sul

**PO3.04.116 ACCELERATED WEATHERING ENVIRONMENT: INFLUENCE ON MECHANICAL AND THERMAL PROPERTIES OF CF/PA6 COMPOSITES**

Larissa Stieven Montagna<sup>1</sup>, Guilherme Ferreira de Melo Morgado<sup>1</sup>, Fabio Roberto Passador<sup>1</sup>, Mirabel Cerqueira Rezende<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO3.04.117 FRACTOGRAPHIC ANALYSIS OF RECYCLED CF/PPS COMPOSITES**

Larissa Stieven Montagna<sup>1</sup>, Guilherme Ferreira de Melo Morgado<sup>1</sup>, Fabio Roberto Passador<sup>1</sup>, Mirabel Cerqueira Rezende<sup>1</sup>; <sup>1</sup>Universidade Federal de São Paulo

**PO3.04.118 PRODUCTION OF BIODEGRADABLE PACKAGING FROM RENEWABLE SOURCES**

Luciano Pisanu<sup>1</sup>, Ana Paula Bispo Gonçalves<sup>1</sup>, Paulo Romano Cruz Correia<sup>1</sup>, Ingrid Lessa Leal<sup>1</sup>, Michele Damiana Mota Martins<sup>1</sup>, Tatiana Barreto Rocha Nery<sup>1</sup>; <sup>1</sup>Faculdade de Tecnologia Senai Cimatec

**PO3.04.119 REMOVAL OF METHYLENE BLUE DYE BY PVDF/RGO MICRO/NANOSTRUCTURAL MEMBRANES PRODUCED BY AIRBRUSHING**

Luiz Francisco Malmonge<sup>1</sup>, Thuany Garcia Maraschin<sup>2</sup>, Nara Regina de Souza Basso<sup>2</sup>, Mirian Cristina dos Santos<sup>1</sup>, Gabriel da Cruz Dias<sup>1</sup>; <sup>1</sup>Universidade Estadual Paulista, <sup>2</sup>Pontifícia Universidade Católica do Rio Grande do Sul

**PO3.04.121 CHITOSAN-BASED MULTILAYER FILM INCORPORATED WITH BIOACTIVE COMPOUNDS FROM JABOTICABA PEEL**

Marcelle Luiz Gomes<sup>1</sup>, Elis Regina Correa Barreto<sup>1</sup>, Luisa Bataglin Avila<sup>2</sup>, Gabriela Silveira da Rosa<sup>1</sup>; <sup>1</sup>Fundação Universidade Federal do Pampa, <sup>2</sup>Universidade Federal de Santa Maria

**PO3.04.123 INFLUENCE OF THE MODIFICATION OF BREWER'S SPENT GRAIN FIBERS ON THE BIODEGRADABILITY OF THERMOPLASTIC STARCH COMPOSITES**

Maria Natália Castanho<sup>1</sup>, Karen de Souza do Prado<sup>1</sup>, Jane Maria Faulstich de Paiva<sup>1</sup>; <sup>1</sup>Universidade Federal de São Carlos - Campus Sorocaba

**PO3.04.124 INFLUENCE OF THE MODIFICATION OF BREWER'S SPENT GRAIN FIBERS ON CONTACT ANGLE MEASUREMENTS OF THERMOPLASTIC STARCH COMPOSITES**

Maria Natália Castanho<sup>1</sup>, Karen de Souza do Prado<sup>1</sup>, Jane Maria Faulstich de Paiva<sup>1</sup>; <sup>1</sup>Universidade Federal de São Carlos - Campus Sorocaba

**PO3.04.125 EFFECT OF INCORPORATING RECYCLED FLEXOGRAPHIC PHOTOPOLYMER PLATE PARTICLES INTO AN EPOXY MATRIX**

Marina Kauling de Almeida<sup>1</sup>, Lara Vasconcellos Ponsoni<sup>1</sup>, Matheus Vinicius Gregory Zimmermann<sup>1</sup>; <sup>1</sup>Universidade do Extremo Sul Catarinense

**PO3.04.126 SUSTAINABLE POLYURETHANE FOAM WITH RICE HUSK ASH RESIDUES WITH POTENTIAL APPLICATION IN THE ADSORPTION OF PESTICIDES IN WATER FOR HUMAN CONSUMPTION**

Verenna Santos Guedes<sup>1</sup>, Bruna Nitzsche Morato<sup>1</sup>, Eliane Ayres<sup>2</sup>, Ricardo de Oliveira Correia<sup>1</sup>, Rodrigo Lambert Oréfica<sup>1</sup>, Marcelo Libânio<sup>1</sup>, Marys Lene Braga Almeida<sup>1</sup>; <sup>1</sup>Universidade Federal de Minas Gerais, <sup>2</sup>Universidade do Estado de Minas Gerais

**PO3.04.129 PROTON CONDUCTING MEMBRANES BASED ON SODIUM ALGINATE AND PROTIC IONIC LIQUIDS**

Alene Dutra Nascimento<sup>1</sup>, Lilian Ferreira Senna<sup>1</sup>, Silvana Mattedi<sup>2</sup>, Rodrigo Azevedo dos Reis<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro, <sup>2</sup>Universidade Federal da Bahia

**PO3.04.130 MIXED MATRIX FILMS BASED ON PEBAX® FILLED WITH LAYERED DOUBLE HYDROXIDES**

Djeison Perrut Russell Moreth<sup>1</sup>, Fatima Maria Zanon Zotin<sup>1</sup>, Luz Amparo Palacio Santos<sup>1</sup>, Rodrigo Azevedo dos Reis<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO3.04.131 COMPOSITES OF POLYESTER RESIN WITH DIFFERENT COMBINATIONS OF FIBERGLASS REINFORCEMENTS OBTAINED BY PULTRUSION**

Rosmary Nichele Brandalise<sup>1</sup>, Laura Gallina Moscone<sup>1</sup>, Rodrigo Bernardi<sup>2</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>Randon Implementos Rodoviários

**PO3.04.132 ANALYSIS OF THE PROJECT OF AN AUTOMOTIVE CRANKCASE USING THE PC/ABS BLEND**

Talita Angelica dos Santos<sup>1</sup>, Cauê Parisati de Carvalho<sup>1</sup>, Daniel Quaresma Rinaldi de Freitas<sup>1</sup>, Rogério Gonçalves da Silva<sup>1</sup>; <sup>1</sup>Faculdade de Tecnologia de Ensino Superior

**PO3.04.133 BIODEGRADABLE COMPOSITES OF SUGARCANE BAGASSE AND POLYURETHANE**

Talita Angelica dos Santos<sup>1,2</sup>, Carla Molina Satirio<sup>1</sup>, Karina Oliveira Fernandes da Silva<sup>1</sup>, Maria Virgem Carvalho de Paula<sup>1</sup>, Natália Francisco de Paula<sup>1</sup>; <sup>1</sup>Faculdade de Tecnologia de Ensino Superior, <sup>2</sup>Sp

**PO3.04.134 REVALORIZATION PINECONE RESIDUES REINFORCED ACRYLONITRILE BUTADIENE STYRENE (ABS) COMPOSITE FILAMENTS FOR 3D-PRINTING BY FDM**

Thalita da Silva Neto<sup>1</sup>, Paulo Henrique Fernandes Pereira<sup>1</sup>, João Vitor Gomes de Freitas<sup>1</sup>, Daniella Regina Mulinari<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO3.04.135 INFLUENCE OF DIFFERENT ORGANIC ACIDS AS COUPLING AGENTS ON THE THERMAL PROPERTIES OF HDPEPC/CURAUVA FIBER COMPOSITE**

Vanessa Zimmer Kieffer<sup>1</sup>, Edson Luiz Francisquetti<sup>2</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

**PO3.04.136 SUSTAINABLE ALTERNATIVES FOR PACKAGING: EXPLORING THE HIGROSPICITY OF BIODEGRADABLE MATERIALS BASED ON PLA, PBAT, AND RICE HUSK**

Vanessa Zimmer Kieffer<sup>1</sup>, Nicole B. Agostini<sup>1</sup>, Edson Luiz Francisquetti<sup>2</sup>, Ruth Marlene Campomanes Santana<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

**PO3.04.138 EVALUATION OF BARRIER PROPERTIES AND COMPATIBILITY OF EVA/THERMOPLASTIC STARCH BLENDSFOI ALTERADO PARA EVALUATION OF BARRIER THE WATER VAPOR PROPERTIES AND COMPATIBILITY OF EVA/THERMOPLASTIC STARCH BLENDS**

Edson Luiz Francisquetti<sup>1</sup>, wagner Guadagnin<sup>1</sup>, Daiane Romanzini<sup>1</sup>, Maurício Cardoso Kade<sup>1</sup>, Mara Zeni de Andrade<sup>1</sup>, Fernando Reis<sup>1</sup>, Clair José Frighetto<sup>1</sup>, Gerson Frighetto<sup>1</sup>, Diego Ferranti Guerra<sup>1</sup>, Danieli Mützenberg<sup>1</sup>, Ana Paula Bilck<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Rio Grande do Sul

**PO3.05.139 EFFECTS OF 3D FDM PRINTING PARAMETERS ON MECHANICAL PROPERTIES OF POLY(LACTIC ACID) FOR UPPER LIMB ORTHOSES**

Ana Carolina Campos Abrão<sup>1</sup>, Baltus Cornelius Bonse<sup>1</sup>, Sandro Luis Vatanabe<sup>1</sup>, Marko Ackermann<sup>1</sup>; <sup>1</sup>Centro Universitário da Fundação Educacional Inaciana Pe Sabóia de Medeiros

**PO3.05.141 DEPOSITION OF STAINLESS-STEEL FILMS ON EPOXY FIBERGLASS REINFORCED COMPOSITE BY MAGNETRON SPUTTERING**

Daniela Becker<sup>1</sup>, Bruno J. Storgatto<sup>1</sup>, Abel André Cândido Recco<sup>1</sup>; <sup>1</sup>Fundação Universidade do Estado de Santa Catarina

**PO3.05.142 EFFECT OF ULTRA HIGH MOLAR MASS POLYETHYLENE (UHMWPE) ON HIGH DENSITY POLYETHYLENE (HDPE) PROCESS PARAMETERS**

Fabiana de Carvalho Fim<sup>1</sup>, Ryan Ferreira dos Santos<sup>1</sup>, Luziany Gomes da Nóbrega<sup>1</sup>, Gabriel Cavalcante Gomes Duarte<sup>1</sup>, Maria Edvânia de Almeida Lima<sup>1</sup>, Lucineide Balbino Silva<sup>1</sup>; <sup>1</sup>Universidade Federal da Paraíba

**PO3.05.143 COMPARATIVE ANALYSIS OF ROTOMOLDING AND INJECTION PROCESSES FOR THE MANUFACTURE OF HDPE PRODUCTS**

Henrique Ramirez Mença<sup>1</sup>, Camila Figueiró<sup>2</sup>, Frederico Eggers<sup>2</sup>, Cristiane Miotto Becker<sup>2</sup>, Otávio Bianchi<sup>1</sup>, Sandro Campos Amico<sup>1</sup>; <sup>1</sup>Universidade Federal do Rio Grande do Sul, <sup>2</sup>Instituto Senai de Inovação - Engenharia de Polímeros

**PO3.05.145 DEVELOPMENT AND IMPROVEMENT OF THE QUALITY OF PULTRUDED COMPONENTS AND INSPECTION REQUIREMENTS**

Juliana Bovi de Oliveira<sup>1</sup>, João Victor Passos Neves Gomes<sup>1</sup>, Ricardo Francisco Gouvea<sup>1</sup>, Michelle Leali Costa<sup>1</sup>; <sup>1</sup>Instituto de Pesquisas Tecnológicas do Estado de São Paulo

**PO3.05.146 INJECTION OVERMOLDED POLYMER-WOOD HYBRID STRUCTURE**

Leonardo Bresciani Canto<sup>1</sup>, Gean Henrique Marcatto de Oliveira<sup>2</sup>, Gabriel Vitorino Silva<sup>2</sup>; <sup>1</sup>Universidade Federal de São Carlo - Campus São Carlos, <sup>2</sup>Universidade Federal de São Carlos

**PO3.05.147 EVALUATION OF THE FEASIBILITY OF RECONDITIONING ABS SAMPLES MANUFACTURED BY 3D PRINTING**

Luana Alves Patrocínio<sup>1</sup>, Gisele Duarte Caboclo Antolin<sup>1</sup>, Mauricio Quelhas Antolin<sup>1</sup>, Juliane Carera Marin<sup>1</sup>, Mônica Cristina Cedestino dos Santos<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO3.05.148 A NEW COATING METHOD FOR PRODUCING CONDUCTIVE POLYMER COMPOSITES FILLED WITH NANO-EXPANDED GRAPHITE**

Wallyson Souza Ramos<sup>1</sup>, Daniel Eurico Salvador de Sousa<sup>1</sup>, Jéssica Claro Pereira<sup>1</sup>, Talabi Segun Isaac<sup>2</sup>, Alessandra de Almeida Lucas<sup>3</sup>; <sup>1</sup>Univerdade Federal de São Carlos, <sup>2</sup>University of Ilorin, <sup>3</sup>Universidade Federal de São Carlos

**PO3.06.149 EFFECT OF PEPTIZER ON NATURAL RUBBER AND CHLOROBUTYL RUBBER**

Amanda Faria Baruel<sup>1,2</sup>, Sandra Aparecida Coelho de Mello<sup>2</sup>, Flávio Henrique de Oliveira Felipe<sup>1</sup>, Silvana Navarro Cassu<sup>1,2</sup>; <sup>1</sup>Instituto Tecnológico de Aeronáutica, <sup>2</sup>Instituto de Aeronáutica e Espaço

**PO3.06.150 VULCANIZATION AND MECHANICAL PROPERTIES OF NR/CIIR BLENDS**

Amanda Faria Baruel<sup>1,2</sup>, Sandra Aparecida Coelho de Mello<sup>2</sup>, Silvana Navarro Cassu<sup>1,2</sup>; <sup>1</sup>Instituto Tecnológico de Aeronáutica, <sup>2</sup>Instituto de Aeronáutica e Espaço

**PO3.06.151 THERMAL BEHAVIOR OF NBR VULCANITES ACTIVATED WITH PLANT-EXTRACT-DERIVED MAGNESIUM OXIDE**

Ariane Aparecida da Silva<sup>1</sup>, Ana Maria Furtado de Sousa<sup>1</sup>, Cristina R. G. Furtado<sup>1</sup>, Nakédia Maysa Freitas Carvalho<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO3.06.154 EVALUATION OF THE MECHANICAL PROPERTIES AND ADHESIVE STRENGTH OF POLYCHLOROPRENE-BASED ADHESIVES**

Gabriel Bachega Rosa<sup>1,2</sup>, Silvana Navarro Cassu<sup>1,2</sup>, Sandra Aparecida Coelho de Mello<sup>2</sup>; <sup>1</sup>Instituto Tecnológico de Aeronáutica, <sup>2</sup>Instituto de Aeronáutica e Espaço

**PO3.06.155 MAGNESIUM OXIDE AS ACTIVATOR FOR NITRILE RUBBER COMPOUNDS: VULCANIZATION KINETICS AND CROSS-LINK DENSITY**

Giovana Ramalho Barbosa Graça<sup>1</sup>, Ariane Aparecida da Silva<sup>1</sup>, Ana Maria Furtado de Sousa<sup>1</sup>, Nakédia Maysa Freitas Carvalho<sup>1</sup>, Cristina R. G. Furtado<sup>1</sup>; <sup>1</sup>Universidade do Estado do Rio de Janeiro

**PO3.06.156 STUDY OF REINFORCEMENT PROPERTIES OF DRACAENA TRIFASCIATA FIBERS IN NATURAL RUBBER COMPOSITES**

Henrique Pina Cardim<sup>1</sup>, Altibano Ortenzi Júnior<sup>2</sup>, Carlos Toshiyuki Hiranobe<sup>1</sup>, Flávio Camargo Cabrera<sup>1</sup>, Renivaldo José dos Santos<sup>1</sup>; <sup>1</sup>UNESP - Campus de Rosana, <sup>2</sup>Universidade Estadual de Londrina

**PO3.06.160 STUDY OF THERMO-OXIDATIVE AGING OF FLUORINATED GASKETS (FKM) USED IN PLATE HEAT EXCHANGERS**

Rafael Souza Ribeiro<sup>1</sup>, Gabriel Benedet Dutra<sup>1</sup>, Mateus De Sousa Zanzi<sup>1</sup>, Elias Luiz de Souza<sup>1</sup>; <sup>1</sup>Universidade Federal de Santa Catarina

**PO3.06.164 ELASTOMERS AND CHAOS: AN UNCONVENTIONAL PERSPECTIVE ON ELECTROMECHANICAL COUPLING AND ITS RELATIONSHIP WITH FAILURE FORECASTING**

Yan Araujo Santos da Campo<sup>1</sup>, Ezequiel Lorenzetti<sup>1</sup>, Kelly Schneider Moreira<sup>1</sup>, Pedro Ravalha Lorenzoni<sup>1</sup>, Thiago A L Burgo<sup>2</sup>; <sup>1</sup>Universidade Federal de Santa Maria, <sup>2</sup>Universidade Estadual Paulista

**PO3.06.220 EVALUATION OF THE INTERACTION BETWEEN BIOCHAR AND ELASTOMERS OF DIFFERENT POLARITIES FOR APPLICATION OF BIOCHAR AS REINFORCEMENT FILLER**

Willian Belincanta Ribeiro<sup>1</sup>, Giovani Bruno Berti<sup>1</sup>, Marcelo Godinho<sup>1</sup>, Rosmary Nichele Brandalise<sup>1</sup>; <sup>1</sup>Universidade de Caxias do Sul

**PO3.06.221 RHEOMETRIC, RHEOLOGICAL AND MECHANICAL PROPERTIES OF ELASTOMERIC COMPOUNDS CONTAINING SBR AND GRAPHENE NANOPATELETS**

Rosmary Nichele Brandalise<sup>1</sup>, Suélen Moresco<sup>2</sup>, Morgana de Oliveira<sup>2</sup>; <sup>1</sup>Universidade de Caxias do Sul, <sup>2</sup>Vipal Rubber Technology and Research Center

**PO3.07.165 ACID HYDROLYSIS OF WASTE PET (POLYETHYLENE TEREPHTHALATE) AND PA (POLYAMIDE) MIX**

Adonilson Reis Freitas<sup>1</sup>, Luciana Gaffo<sup>1</sup>, Giovana Gomes Pomes<sup>1</sup>, Helenir N. Ballin<sup>1</sup>; <sup>1</sup>Universidade Estadual do Oeste do Paraná

**PO3.07.166 STUDY OF THE BIODEGRADATION OF CASSAVA STARCH PACKAGING WITH THE ADDITION OF TOMATO PEELS (LYCOPENE): A SUSTAINABLE APPROACH FOR REDUCING ENVIRONMENTAL IMPACT**

Anômore Ariane Rochido dos Santos Cotta<sup>1</sup>; <sup>1</sup>Universidade Federal de Lavras

**PO3.07.167 EVALUATION OF THERMAL BEHAVIOR IN POLYMERIC BLENDS OF EXPANDED POLYSTYRENE (EPS) AND WASTE TIRE RUBBER (WTR)**

Emerson Ferreira da Silva<sup>1</sup>, Antonio José de Andrade Junior<sup>1</sup>, Clodoaldo Saron<sup>1</sup>; <sup>1</sup>Universidade de São Paulo

**PO3.07.168 IN SILICO ANALYSIS POLYURETHANASE FROM *SERRATIA LIQUEFACIENS* WITH DIFFERENT POLYURETHANE MONOMERS AND TETRAMERS**

Cleonice Aparecida Salgado<sup>1</sup>, Júnio Gonçalves Silva<sup>2</sup>, Felipe Alves de Almeida<sup>3</sup>, Maria Cristina Dantas Vanetti<sup>1</sup>; <sup>1</sup>Fundação Universidade Federal de Viçosa, <sup>2</sup>Universidade Federal de Minas Gerais, <sup>3</sup>Empresa de Pesquisa Agropecuária de Minas Gerais

**PO3.07.169 POLYURETHANES BIODEGRADATION BY *STAPHYLOCOCCUS WARNERI* ISOLATED FROM THE GUT OF LARVAE OF *GALLERIA MELLONELLA***

Cleonice Aparecida Salgado<sup>1</sup>, Pedro Marcus Pereira Vidigal<sup>1</sup>, Maria Cristina Dantas Vanetti<sup>1</sup>; <sup>1</sup>Fundação Universidade Federal de Viçosa

**PO3.07.170 MECHANICAL PROPERTIES OF LDPE AND LDPE/PP BLENDS AFTER STRUCTURAL CHANGE BY HIGH SHEAR RATE**

Emerson Ferreira da Silva<sup>1</sup>, Antonio José de Andrade Junior<sup>1</sup>, Clodoaldo Saron<sup>1</sup>; <sup>1</sup>Universidade de São Paulo

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Nicole Aparecida Amorim de Oliveira<sup>1,2</sup>, Fernando Soares Lima<sup>2</sup>, Heber Eduardo Andrada<sup>1</sup>, Eduardo Ferreira Molina<sup>1</sup>; <sup>1</sup>Universidade de Franca, <sup>2</sup>Instituto de Pesquisas Tecnológicas do Estado de São Paulo

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Philipe Pocidonio Silva<sup>1</sup>; <sup>1</sup>Universidade Federal de Minas Gerais

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Rosemary Maria Pimentel Coutinho<sup>1</sup>; <sup>1</sup>Instituto Federal de Educação, Ciência e Tecnologia do Pará

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